

MUTOH

User's Guide

Viper Extreme

Digital Transfer Printer



For Maintenance Kits, Spares,
Service and Support

Call: +44 (0) 1628 588755

E-mail: support@colourgen.com



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1 SAFETY INSTRUCTIONS

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1.1 REGULATIONS



The CE marking is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.



Your product is designed and manufactured with high-quality materials and components, which can be recycled and reused.

When this crossed-out wheeled bin symbol is attached to a product, it means the product is covered by the European Directive 2002/96/EC – WEEE regulation.

Please inform yourself about the local separate collection system for electrical and electronic products.

Please act according to local rules and do not dispose of your old products with your normal household waste. The correct disposal of your old product will help prevent potential negative consequences for the environment and human health.



This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



This Class A digital apparatus complies with Canadian ICES-003.

1.2 HANDLING INKS + WASTE

Before handling inks/ cleaning and their waste, **DO CAREFULLY READ THE MATERIAL SAFETY DATA SHEETS (MSDS)** and the labels for important health, safety and environmental information. Post these documents in the work area as required by federal or local law. All safety data sheets are periodically updated. You will find these sheets and their translations on www.mutoh.eu/Products/Downloads/extra/msds.

Only use original manufacturer's ink and appropriate cleaning liquid. Before installing an ink holder, shake it gently. Doing so will preserve print quality.

When moving ink from a cold place to a warm place, keep the ink for three hours or more in the new printing environment before printing.

Do not disassemble ink holder. Otherwise, ink may get in your eyes or on your skin. A disassembled ink holder cannot be used either.

When refilling ink, use original manufacturer's ink. Our Mutoh printers are designed to use original ink. If you use ink which are not produced by the original manufacturer :

- printing might become blurred and the end of the ink in the holder might not be detected correctly
- Any problems caused by using an ink holder other than those recommended above will not be covered by the warranty, and repair expenses will be paid by the customer.







For handling waste: see section 13 on the MSDS-sheet. Recommendation: dispose of product according to federal, state, provincial and local regulations.

Inks / Waste

- General advice: wear safety glasses and gloves especially when handling the waste ink.
- After spill: remove contaminated clothing.
- After inhalation: if difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.
- After skin contact: wash thoroughly with soap and water.
- After eye contact: wash affected eyes for at least 15 minutes under running water while the eyelids are held open.
- After swallowing: rinse mouth and drink plenty of water. Never induce vomiting.

1.3 WARNINGS, CAUTIONS AND NOTES

Safety terms in this manual and the contents of warning labels attached to the printer are categorized into the following three types, depending on the degree of risk (or the scale of accident). Read the following explanations carefully and follow the instructions in this manual.

Safety terms	Details
 Important 	Must be followed carefully to avoid death or serious bodily injury.
 Caution 	Must be observed to avoid bodily injury (moderate or light) or damage to your equipment.
 Notes 	Contains important information and useful tips on the operation of your printer.

1.4 SAFETY INSTRUCTIONS

Machines must be installed according to Mutoh's Installation Guide also after moving machines to another location; maintenance needs to be done according to the maintenance manual.

To prevent fire or electrical shock, never use a power supply source other than the one rated for the product in the country where you purchased the product.

Use only the provided power cable. To prevent fire or electrical shock, follow the instructions below when handling the power cable:

- Do not cut or modify the cable.
- Do not put heavy objects on the cable.
- Do not bend, twist, knot or pull the cable.
- Do not wire the cable near equipment that generates heat.
- Do not use the cable with any other electrical device
- Do not handle the cable with wet hands

Be aware of all caution and warning labels to avoid potentially hazardous situations.

To prevent fire or electrical shock, machines must be connected to a properly grounded electrical power outlet. Do not connect the power cable to a power strip or a power source shared by other electrical devices.

- Make sure that no foreign substances such as dust etc. are stuck to the power plug.
- Insert the power plug firmly to the edge of the power socket.

Do not disable any safety precautions systems.

Do not operate the unit unless all parts are mounted.

Do not place the machine in the following areas. Doing so may result in the machine tipping or falling over and causing injury.

- Unstable surfaces
- Sloping floors
- Areas subject to vibration by other equipment

Do not stand on or place heavy objects on your machine. Doing so may result in the machine tipping or falling over and causing injury.

Do not place the machine in humid and dusty areas or in areas exposed to flammables. Doing so may result in electrical shock or fire.

Do not cover the ventilation hole of your machine with cloth, such as a blanket or table cloth. Doing so could obstruct ventilation and cause fire.

Do not insert or drop metal or inflammable objects into openings, such as ventilation outlets. Doing so may result in electrical shock and fire.

Do not touch the media guide during printing. It is hot and may cause a burn.

Do not touch the media feed slot, platen or media guide while heaters are operating. They are hot and may cause a burn.

Do not bend or pull the waste fluid tube. Doing so may cause waste fluid to leak out and malfunction of the product.

Stop using your machine if a liquid has been spilled into it. This may cause electrical shock or fire. Switch the machine off as soon as possible, unplug the power cord, and contact your local MUTOH dealer.

Be sure to power OFF the machine and unplug the power cable from the outlet before cleaning the machine. Use a damp cloth to clean the machine. Do not use thinner, benzene, alcohol or other active agents. Doing so may result in damage or paint peeling from the casing.

Do not tilt the machine, place it against a wall or turn it upside down. Doing so may cause ink to leak inside the machine. Movement after transport is also not covered by the warranty.

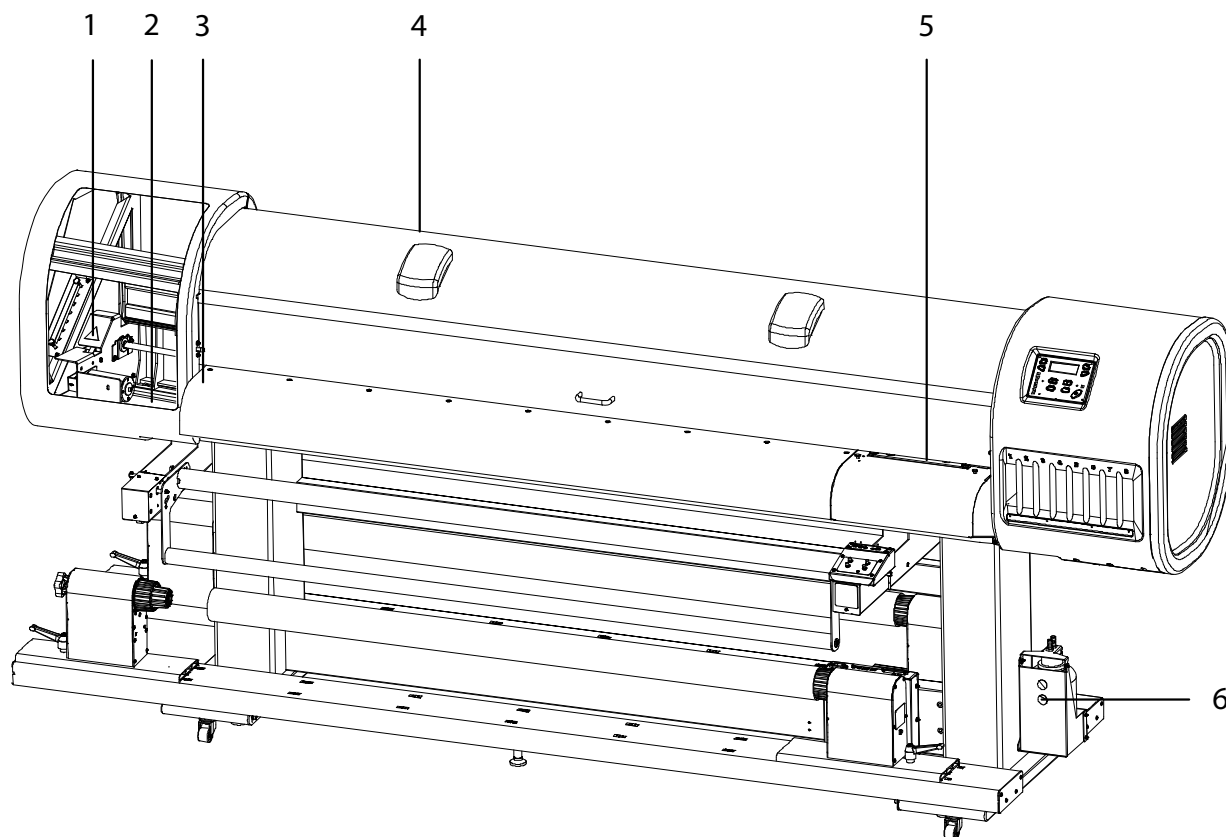
When cutting roll media, be careful of the following. Incorrect handling will result in injury to the hands and fingers from the razor blade.






- When holding the media, do not place fingers over the media cut groove.
- Move the razor blade slowly along the media cutting groove.


To prevent back pains and other injuries, always work with at least 4 people to unpack or move the machine. Keep the machine horizontally during transportation.

Do NOT transport the machine to another room without contacting your local Authorized Mutoh Dealer.

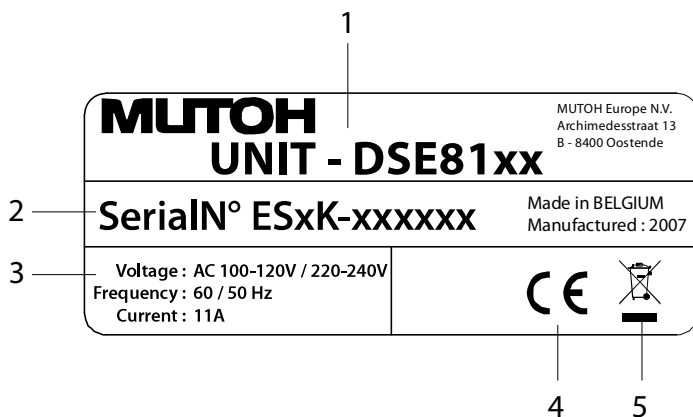
1.5 SAFETY LABELS



N°	Area	Label	Description
1	Steel belt		The steel belt is very sharp, be careful not to cut your fingers.
2	Maintenance area	 	Always wear gloves when performing maintenance in that area. Always wear goggles when performing maintenance in that area.
3	Front platen		The front platen can be very hot (up to 70°C); be careful not to burn your hands.
4	Rear pressure rollers		When loading media, be careful not to pinch your fingers between the pressure rollers and print platform.

5	Wiper arm		Always wear gloves when performing maintenance in that area.
			Always wear goggles when performing maintenance in that area.
6	Waste bottle		Always wear gloves when performing maintenance in that area.
			Always wear goggles when performing maintenance in that area.
			The liquid in the waste bottle may cause health hazards, but is not a toxic liquid.

1.6 SERIAL NUMBER LABEL



N°	Name	Additional info
1	Machine name	xx = 65 or 90 (machine size)
2	Serial number	
3	Electrical specifications	
4	CE mark	
5	WEEE mark	

1.7 OPERATION LABELS

N°

Type

LOADING TRANSFER PAPER / TRANSFERPAPIER LADEN / CHARGEMENT DU PAPIER TRANSFERT / AFDrukPAPIER PLAATSEN / CÔMO CARGAR EL PAPEL DE TRANSFERENCIA / CARICAMENTO DELLA CARTA TRANSFER

1. Centre load the roll at the back.
2. Centre load the empty cardboard core at the front.
3. Feed the transfer paper in the printer.
4. Switch OFF the UWW 100 on the panel (F1), rear and front.
5. Position the ETT segments correctly (left-right).
1. Die Walze auf der Rückseite mittig laden.
2. Den leeren Pappkern auf der Vorderseite mittig laden.
3. Das Transferpapier in den Drucker einführen.
4. Die Auf-/Abwärtsbewegung UWW 100 vorn und hinten auf dem Bedienfeld abschalten (F1).
5. Die Segmente der Zusatzspannvorrichtung korrekt positionieren (links-rechts).

1. Placez le rouleau de papier à l'arrière.
2. Placez le cœur en carton vide à l'avant.
3. Alimenter le papier transfert.
4. Zet de knop UWW 100 op het paneel UIT (F1), zowel achter als voor.
5. Zet de ETT-segmenten links en rechts op de juiste positie in.

1. Carica el rotolo in la parte posteriore y centrado.
2. Carica el tubo vacío de cartón en la parte frontal y centrado.
3. Coloca el papel de transferencia en la impresora.
4. Apaga (ETT) la bobinado/desbobinador 100 en el panel (F1), por delante y por detrás.
5. Coloca los segmentos de la ETT (máquina extra-tensión) correctamente (de izquierda a derecha).

1. Chargez le rouleau de papier sur le support arrière en le centrant.
2. Placez le mandrin en carton vide sur le support avant en le centrant.
3. Faites avancer le papier transfert sur son trajet dans l'imprimante.
4. Débranchez le module tensionneur UWW 100 sur le panneau de commande (position V1), à l'arrière et à l'avant.
5. Positionnez correctement les segments du système de tension supplémentaire ETT (côtés gauche et droit).

1. Carica centralmente il rotolo nella parte posteriore.
2. Carica centralmente l'anima di cartone vuota nella parte anteriore.
3. Inserisci la carta transfer nella stampante.
4. Sgancia le tensioni supplementari 100 sul pannello (V1), nella parte anteriore e posteriore.
5. Posizionare i segmenti dell'ETT correttamente (da sinistra a destra).

6. Apply the plastic film to close the gap.
6. Die Kunststoffolie so anbringen, dass die Lücke geschlossen wird.
6. Appliquez le film plastique de manière à combler l'écart.
6. Overbrug de afstand met de plastic folie.
6. Oetroping la tensie de plastic voor naar en terug.
6. Applicare la pellicola di plastica per chiudere l'apertura.

7. Set the ETT-lever to the back position.
7. Den Hebel der Zusatzspannvorrichtung in die hintere Stellung bringen.
7. Place le levier de l'ETT en position arrière.
7. Zet de ETT-hendel naar achteren.
7. Sitte la palanca de la ETT en posición posterior.
7. Mettere la leva dell'ETT in posizione arretrata.

8. Pull at the paper until the rear swinging tilts against the back of the printer.

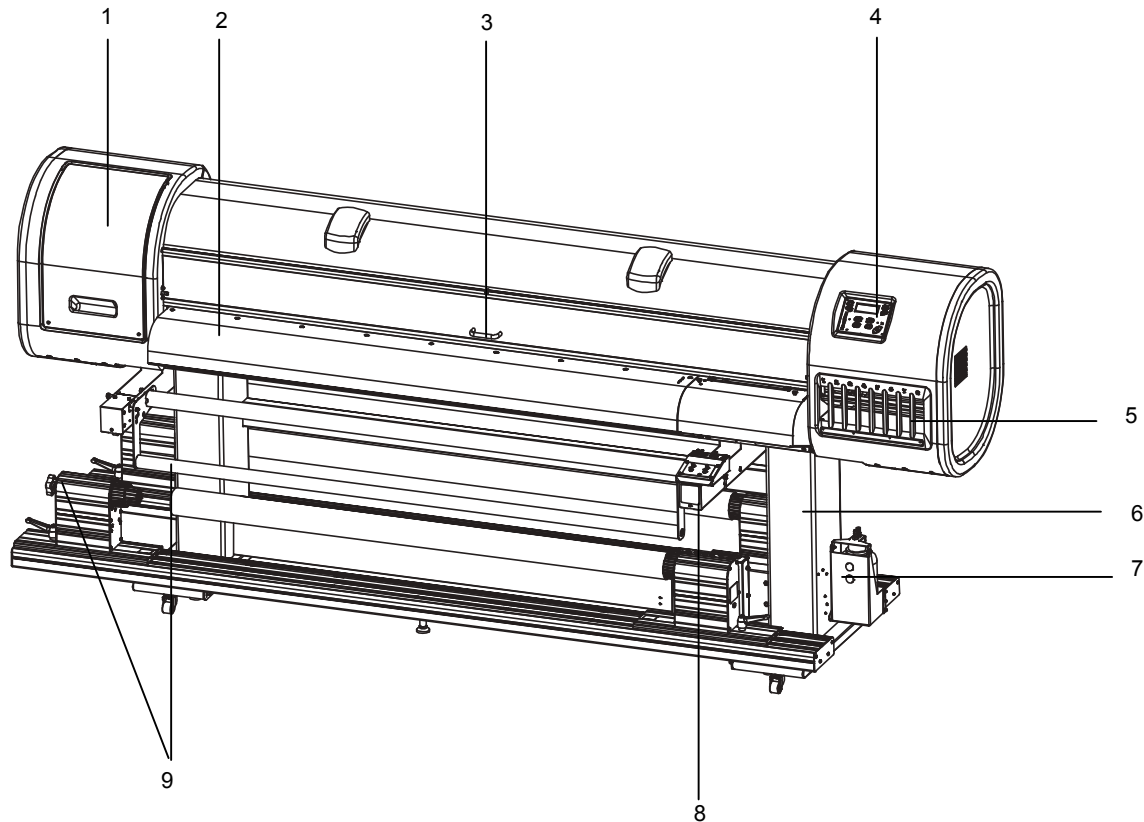
8. Pull until the paper reaches the front empty core.
8. Am Papier ziehen, bis die hintere Schwengeinheit gegen die Druckerleiste schwenkt.
8. Ziehen, bis das Papier den vorderen leeren Kern erreicht.
8. Tirez sur le papier jusqu'à ce que la barre de tension postérieure se rabatte contre l'arrière de l'imprimante.
8. Tirez jusqu'à ce que le papier atteigne le mandrin avant vide.
8. Trek aan het papier totdat de achterste opklepdeur tegen de printer rust.
8. Trai the paper until the rear swing bar is against the back of the printer.
8. Tire el papel hasta que la barra oscilante trabase de contra la parte trasera de la impresora.
8. Tirare la carta finché la barra posteriore non si appoggia all'indietro della stampante.
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8. Tirare la carta finché la barra posteriore non si appoggia all'indietro della stampante.
8. Tirare la carta finché la barra posteriore non si appoggia all'indietro

2 PRODUCT OVERVIEW

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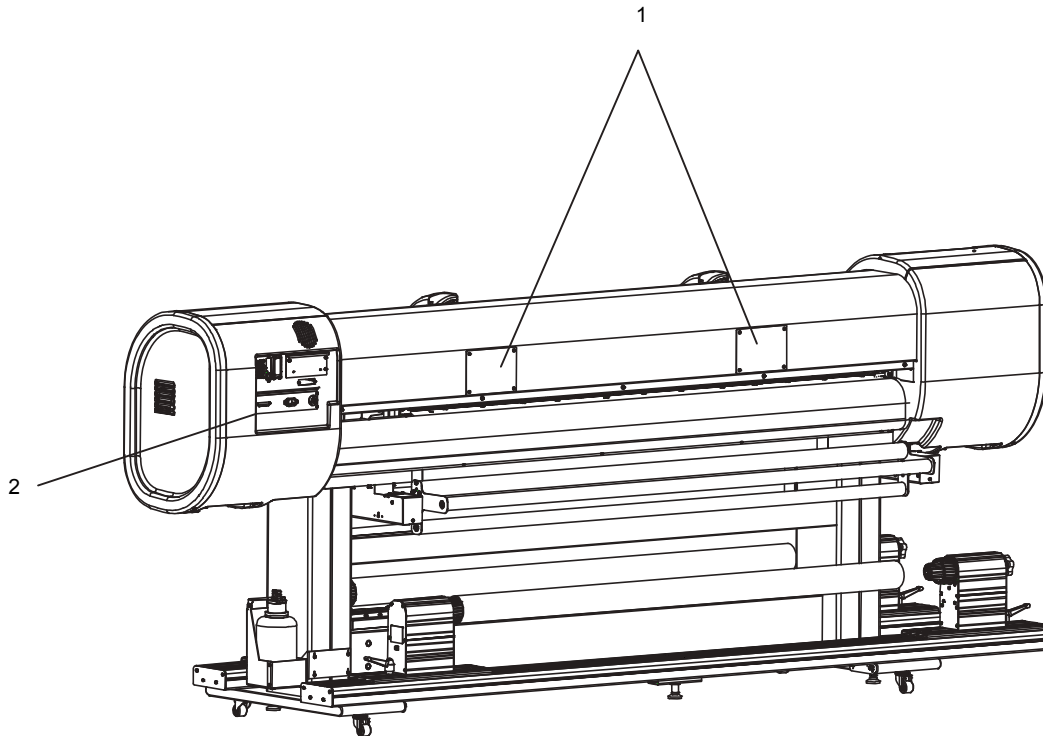
2.1 PART NAMES AND FUNCTIONS


2.1.1 Front



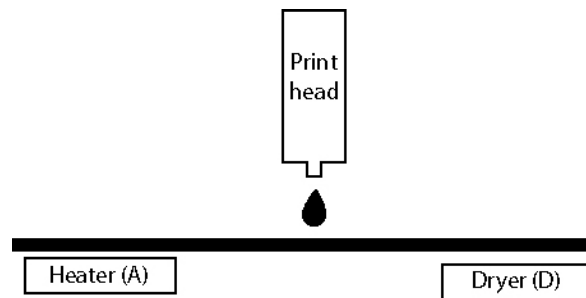
N°	Name	Function
1	Left maintenance cover	Cover to access the maintenance area
2	Heater plate	Supports and heats the media during printing.
3	Front cover	Keeps the operator safe from moving parts. Only open and/or close the cover to perform following operations: Media setting and replacement Cutter blade replacement Cleaning the cleaning wiper
4	Operation panel	To control the printer.
5	Ink compartment cover	Covers the ink compartment.
6	Stand	Carries the main body.
7	Waste bottle assembly	Collects the waste fluid.
8	Winder control panel	To operate the winding system
8	Unwinder / Winder 100	System to unwind and wind media rolls up to 100 kg.

2.1.2 Rear



N°	Name	Function												
1	APS connection points	To mount an air purification system / forced ventilation. Mutoh provides an APS system for collection of VOCs that are emitted at the printing area. When you want to connect your own air purification system, a tube connection is available. Please refer to the latest price list for more information.												
2	<div></div> <table><thead><tr><th>N°</th><th>Name</th></tr></thead><tbody><tr><td>1</td><td>Network interface connector</td></tr><tr><td>2</td><td>Centronics connector</td></tr><tr><td>3</td><td>Foot switch connector</td></tr><tr><td>4</td><td>Power cable connector</td></tr><tr><td>5</td><td>Bulk ink system connector</td></tr></tbody></table>		N°	Name	1	Network interface connector	2	Centronics connector	3	Foot switch connector	4	Power cable connector	5	Bulk ink system connector
N°	Name													
1	Network interface connector													
2	Centronics connector													
3	Foot switch connector													
4	Power cable connector													
5	Bulk ink system connector													

2.1.3 Position and function of the heating elements

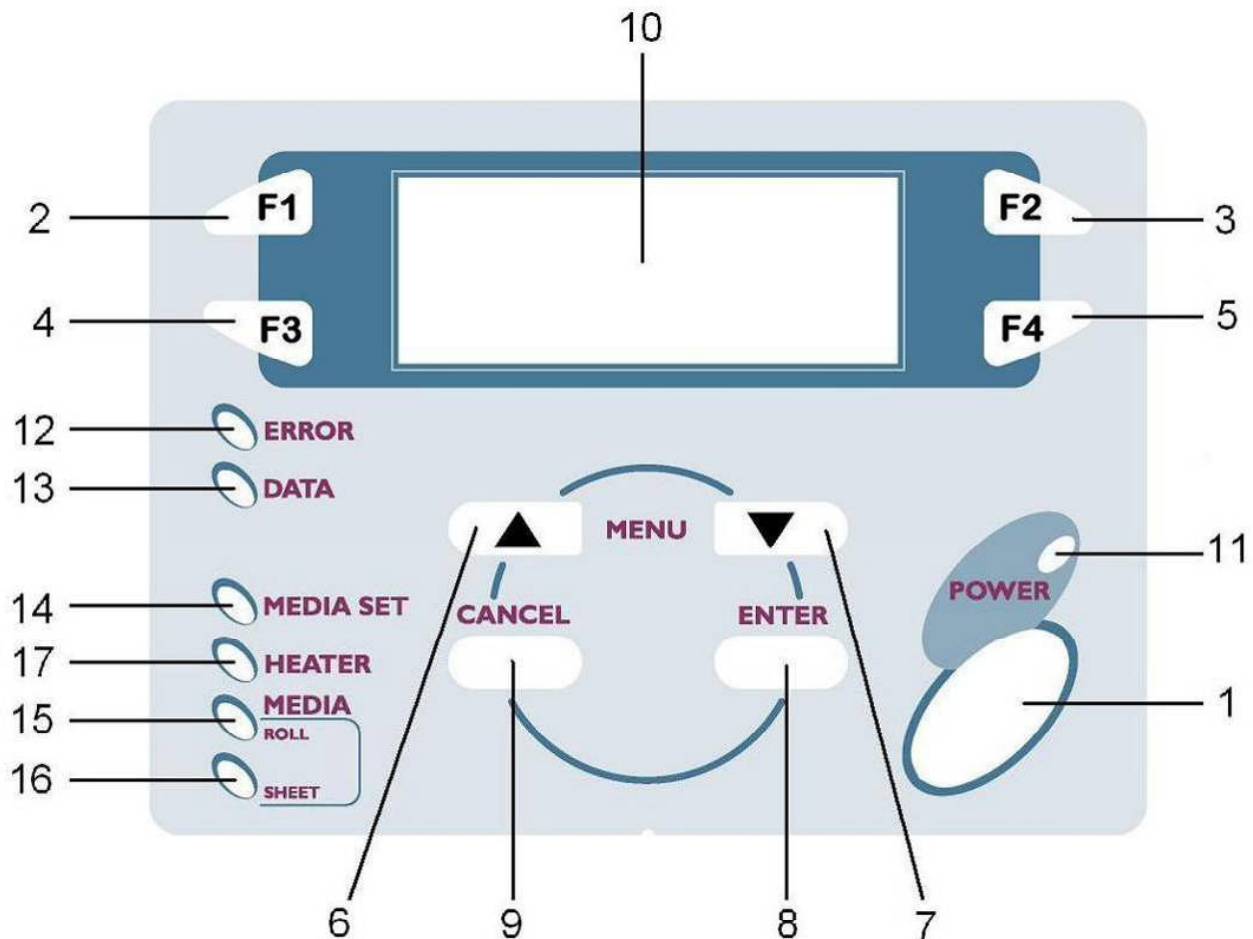


Heater element	Temperature	Function
Pre-heater (Heater A)	20 – 70°C	→ The pre heater expands the transfer paper before it hits the pinch rollers.
Dryer (Heater D)	20 – 70°C	→ The dryer helps to make the media touch-dry before it reaches the automatic take-up system

2.2 OPERATION PANEL

Use the operation panel to set operational conditions, display the status of the printer, and set other functions.

The names and functions of the operation keys and status lamps are explained below.



2.2.1 Operation keys

N°	Name	Function
1	[POWER] key	To power ON or OFF the Viper Extreme.
2	[F1] key	To select the function or parameter displayed in the left upper corner
3	[F2] key	To select the function or parameter displayed in the right upper corner
4	[F3] key	To select the function or parameter displayed in the left lower corner
5	[F4] key	To select the function or parameter displayed in the right lower corner
6	[MENU ↑] key	To browse between the different menus (1/5 → 2/5)
7	[MENU ↓] key	To browse between the different menus (2/5 → 1/5)
8	[ENTER] key	To activate a setting or parameter
9	[CANCEL] key	To cancel an activity and go back to the previous menu

2.2.2 LCD monitor and status lamps

N°	Name	Colour	Status	Function
10	LCD	-	-	The monitor displays the operation status and error messages of the printer.
11	POWER	Green	ON	The printer is on.
			OFF	The printer is off.
12	ERROR	Red	Flashing	An error has occurred. The contents will be displayed on the LCD monitor.
			OFF	Either there is no error or the power is off.
13	DATA	Orange	ON	The printer receives print data.
			Flashing	The printer analyses received data.
			OFF	The printer waits to receive print data.
14	MEDIA SET	Orange	ON	<ul style="list-style-type: none"> ➤ The nip roller is in the release position. ➤ Media has not been loaded.
			OFF	<ul style="list-style-type: none"> ➤ The nip roller is in the secured position. ➤ The media has not been loaded.
			ON	The media type is set to roll media.
15	ROLL	Orange	OFF	The media type is set to sheet media.
			ON	The media type is set to sheet media.
16	SHEET	Orange	OFF	The media type is set to roll media.
			ON	The heating elements reached the requested temperature.
17	HEATER	Orange	Flashing	The heating elements warm up.
			OFF	The heating elements are OFF.

2.3 INSTALLATION REQUIREMENTS

2.3.1 Installation environment requirements

Choose a place for printer installation following the requirements in the table below.

Area	65" model	12.7m ² (144ft ²) or larger. Frontage of 4.7m (15.7ft) or greater.
	90" model	14.3m ² (162ft ²) or larger. Frontage of 5.3m (17.7ft) or greater.

Floor loading capability	2940 Pa (300kg/m ²) or over
--------------------------	---

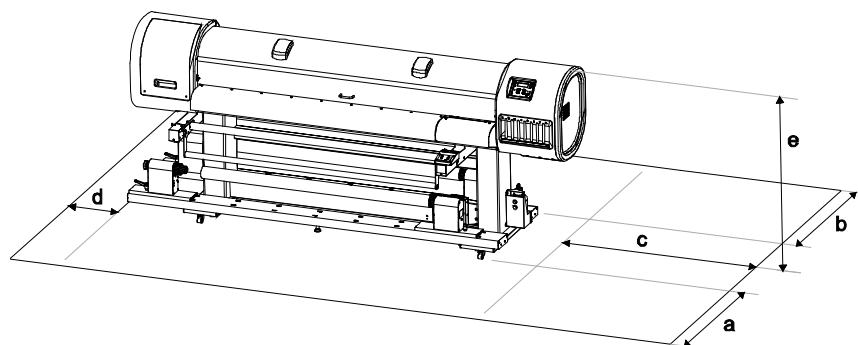
Electrical	Voltage	AC 100-120V AC 220-240V
	Frequency	60/50Hz±1Hz
	Capacity	AC100V-120V : 12A AC220V-240V : 6A

In order to protect the printer for over currents, short circuits and earth faults, equip the building installation with an automatic breaker double pole of 20 A and an earth leakage switch of 300 mA.

Environmental	Recommended working environment	Temperature: 25° Humidity: 30% to 60%, without condensation
	Operational conditions	Temperature: 19° to 26° Humidity: 30% to 60%, without condensation
	Rate of change	Temperature: No more than 2° per hour Humidity: No more than 5% per hour
	Storage environment	Temperature: -20° to 60° Humidity: 5% to 85%, without condensation (When ink has been discharged.)

2.3.2 Required space

Install the product on a flat surface that fulfils the following conditions.



a = 1,5 m
b = 1,5 m
c = 2,5 m
d = 0,6 m
e = 1,3 m

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3 BASICS

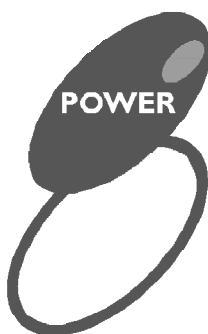
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3.1 SWITCHING THE POWER ON/OFF

Be sure to read and understand the safety warnings before handling the printer.

3.1.1 Switching the power ON

- Step 1 :** Press the [POWER] key of the operation panel, to switch the unit ON.
- The POWER lamp of the operation panel will light (green).



- Step 2 :** The unit will initial start-up operations.

- Step 3 :** After finishing initial start-up operations, the unit will enter the normal operating condition.

⚠ Notes ⚠

If there are any problems during the initial start-up operation, the unit will display a message and the operation stops. If the operation stops, refer to "Troubleshooting", and take the appropriate actions.

3.1.2 Switching the power OFF

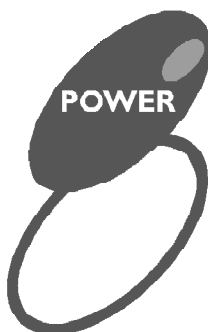
Step 1 : Verify the following regarding the operational condition of the unit.

- Performs no printing operation.
- The operation panel is in a normal status.

Step 2 : Press the [POWER] key to switch the unit OFF.

⚠ Notes ⚠

If the power lamp is lit green, the power is ON. Press the key again to switch the power OFF.



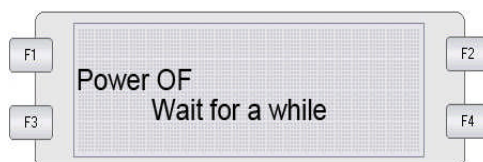
[Power OFF] will be displayed for a few seconds

⚠ Notes ⚠

If pressing the [POWER] key by mistake, press the [POWER] key again.

Step 3 : The printer will perform the power OFF operation.

- The operation panel displays:



- All lamps and the LCD of the operation panel will switch OFF.
- The product will automatically switch the power OFF.

⚠ Notes ⚠

If there are problems during the power OFF operation, the unit will display a message, and the operation stops. If the operation stops, refer to "Troubleshooting" and take the appropriate actions.

3.2 LOADING MEDIA

Please note that the label, which is located inside the left maintenance cover, also describes the correct media loading.

Environmental	Recommended working environment	Temperature: 19°C – 26°C Humidity: 30% to 60%, without condensation
---------------	---------------------------------	--

⚠ Notes ⚠

Please note that some inks require a humidity of more than 50%, other inks can be used at 30% humidity. Please contact your ink supplier for optimum printing conditions.

⚠ Notes ⚠

The size of the media can change at a fixed ratio according to the temperature changes of the working environment. Before using media, place the media roll in the working environment for at least 24 hours, to have it match to the temperature of the working area.

Printing before the media could accommodate to the printing environment may cause media jams due to slippage or creases. This also adversely affects the quality of printing.

3.2.1 Loading roll media

Be sure to read and understand the safety warnings before handling the printer.

Please refer to the User's Guide of the Unwinder / Winder 100 to know how to load roll media

3.2.2 Setting media type

- Step 1 :** Switch the printer ON and load the media.
- Once the media has been set, the media initial menu will be displayed.
- Step 2 :** Press one of the following keys and select the current media type.
- When alternating roll/sheet media selection: [F2]
 - When changing from media loading: [F3]
 - When changing media type: [F4]



Setup items	Key	Parameters	Description
Media type	F2	Roll media	Alternates the roll media type.
		Sheet media	<ul style="list-style-type: none"> • Roll media: Set when loading roll media. • Sheet media: Set when loading sheet media.
Lever Down/Up	F3	Lever up	Switches between up and down motion of the pressurizing lever. Use this when starting over from the media setup.
		Lever down	
Media Type	F4	User 1	Set media type for printing.
		User 2	For setup values of printing operation, eight settings of "user 1-8" are available.
		User 3	Refer to 'Menu Overview'
		User 4	
		User 5	
		User 6	
		User 7	
		User 8	

- Step 3 :** Press the [Enter] key.
- The media type has been set.

⚠ Notes ⚠

- The printer starts the media initial operation if you :
- Press the [CANCEL] key.
 - Leave the printer for 10 seconds without doing anything

- Step 4 :** When the media initial operation finishes, the printer moves to normal status.
- The setting media loading procedure has been completed.



3.3 PERFECT MEDIA HANDLING

The Viper Extreme printer prints on transfer paper with water-based disperse dye inks. An annoying effect of transfer paper when coming into contact with ink is expansion of the media.

Therefore, the Viper Extreme has been specially developed to avoid the media cockling to occur and to minimize the print heads to touch the media when minimal media cockling occurs.

⚠ Notes ⚠

The transfer papers with a low g/m², the thinnest, are most sensitive to expanding. This expansion results in media coming up from the print platform between the different pressure rollers.

3.3.1 Measurements to prevent media cockling

Prevent media cockling to avoid the print heads to touch the media (protect heads and print result) and to avoid the cockling structure to become apparent in the print result.

Be sure to read and understand the safety warnings before handling the printer.

3.3.1.1 Unwinder / winder 100

The Unwinder / winder 100 system always provides an equal tension on the media when printing.

It is important that the Unwinder / winder 100 is perfectly lined out to prevent cockling. To line out the Unwinder / winder 100, please refer to the user's guide "Handling Roll Media".

Print environment of transfer paper

Environmental	Recommended working environment	Temperature: 19° - 26° Humidity: 30% to 60%, without condensation
---------------	---------------------------------	--

⚠ Notes ⚠

Please note that some inks require a humidity of more than 50%, other inks can be used at 30% humidity. Please contact your ink supplier for optimum printing conditions.

3.3.1.2 Pre-heating of the transfer paper

The Viper Extreme printer is equipped with a pre-heater. (Range up to 70°C.)

⚠ Notes ⚠

We recommend you to set the pre-heater temperature at 50°C. This to be sure that the transfer paper expands a little before reaching the pressure rollers.

3.3.1.3 Extra fans

The Viper Extreme is equipped with extra fans to keep the transfer paper flat on the print platform.

⚠ Notes ⚠

We recommend you to select "HIGH" in the vacuum menu. Only use "LOW" or "MEDIUM" when using sheet media.

3.3.1.4 Pressure rollers disabler tool

The pressure roller disabler tool allows a pressure roller to be lifted while printing, thus providing the necessary space for media to expand.

Notes

When using roll media, we recommend you to use 2 pressure rollers disabler tools on both side of the media, as well as 2 on 1/3 and 2 on 2/3 of the media.
It is not necessary to use pressure rollers disabler tools when using sheet media.

3.3.1.5 Media Retainers

The media cockling causes the transfer paper edges to curl. Media retainers keep the media edges pushed down.

Notes

When using roll media, we recommend you to always use the media retainers.
When using the media retainers, do not use the cut function.

Notes

When using sheet media, media retainers are not necessary. If used, please make sure you load the media correctly. Otherwise, media will slant and the media retainers could tear the transfer paper.

3.3.2 Measurements to minimize head touching cockling media

In case of media cockling following tools are available to avoid the print heads to touch the media (protect heads and print result).

3.3.2.1 ETT (patent pending)

The ETT Extra Tension Tool pulls the media in line with the print platform. The tension on the sides is always bigger than in the middle. As a result possible curls are straightened.

Notes

Always make sure that the ETT supports the complete width of the paper. Especially the edges of the media must be supported.
Only use the middle part of the ETT if media width is larger than 44" (for 65" printer)
Only use the middle part of the ETT if media width is larger than 51" (for 90" printer)

3.3.2.2 Head Height

The following head heights are available on the Viper Extreme: 1.2 mm (LOW), 2.2 mm (MIDDLE) and 4 mm (HIGH). (Default: Middle)

Notes

We recommend you to use the lowest possible head height. This to obtain the best printing quality.

Notes

At all head heights, be sure that the correct media thickness is set!

3.3.3 Media retainers (media holder)

The media cockling causes the transfer paper edges to curl. Media retainers keep the media edges pushed down on the print platform.

⚠ Notes ⚠

When using roll media, we recommend you to always use the media retainers.
When using sheet media, media retainers are not necessary. If used, please make sure you load the media correct. Otherwise, media can slant and the media retainers could tear the transfer paper.

⚠ Notes ⚠

When using media holder, make sure to firmly set it to the platen of the printer unit.
In case the media holder declines or loosens, it might hit the print head and cause trouble.

⚠ Notes ⚠

When using the media holder, please do the following :

- Set to "Normal" or "TakeupReel" on the Media Detection menu.
- When setting the Media Detection menu to OFF, define a smaller value than the media width on the Media Width menu.

3.3.3.1 Installing

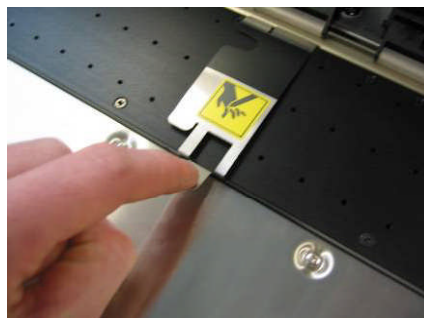
Step 1 : Verify if the media initial operation has been finished.

Step 2 : Open the front cover.

Step 3 : Attach the media holder (left, right) to both sides of the roll media. First attach the rear side of the media retainer to the rear of the print platform.



Step 4 : Push the front side of the media retainer down to set it.



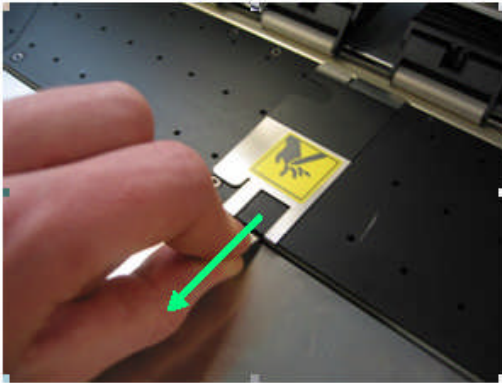
Step 5 : Close the front cover.

3.3.3.2 Uninstalling

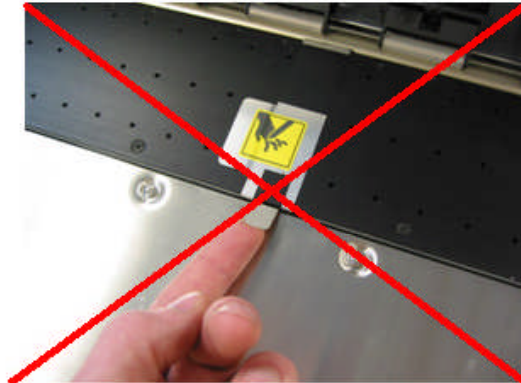
To remove the media retainers, please follow the instructions below.

Step 1 : Carefully pull the lid towards you and unlock the media retainer from behind the print platform.

OK



NOT OK



3.3.4 Using the ETT system

The ETT Extra Tension Tool pulls the media in line with the print platform. The tension on the sides is always bigger than in the middle. As a result possible curls are straightened.

Step 1 : Make sure there is no media loaded in the printer. Bring the ETT-holding-bar forward. (Handle is placed horizontal.)

Step 2 : Install the ETT's on the ETT-holding-bar.

Notes

Make sure to correctly install the extra tensioning tool (ETT)

There are three different ETT's: a Left-ETT, a middle-ETT and a Right-ETT.
Please note that the outer sides of the Right and Left-ETT have longer springs than the insides!
Place the PE-strip over the transitions between the different ETT segments

Only use the middle part of the ETT if media width is larger than 44" (for 65" printer)

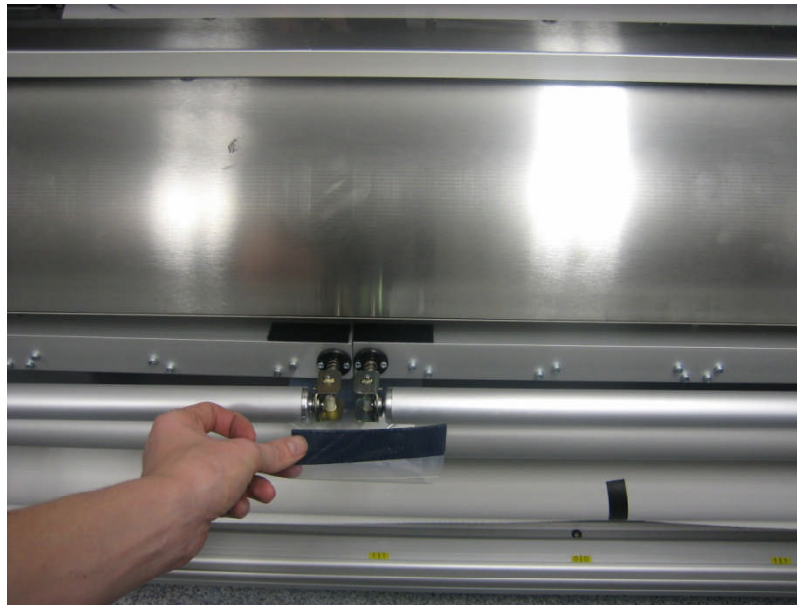
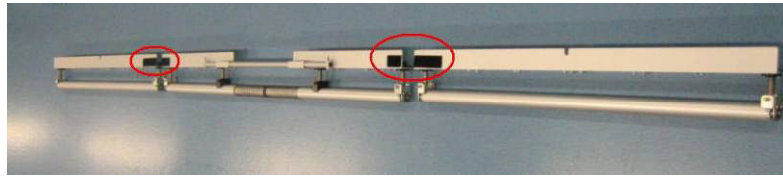
Only use the middle part of the ETT if media width is larger than 51" (for 90" printer)

Step 3 : Secure all ETT's to the ETT-holding-bar with the secure knob.



Step 4 : Put the ETT in the backwards position (place the handle vertically).

Step 5 : Fix the plastic covers to the Velcro strips of the ETT



Notes

- It is very important to install the plastic covers onto the ETT. These covers prevent the media from being jammed between the ETT.

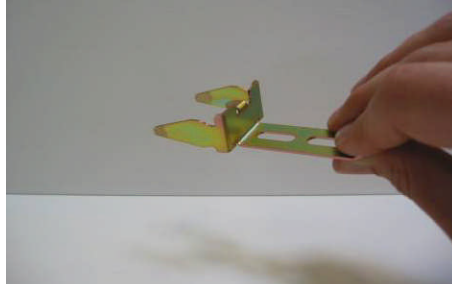
Step 6 : Install the roll media. (Please refer to loading roll media.)

Step 7 : Bring the ETT-holding-bar with the previously installed ETT's forward. The extra tension is set to the outer sides.

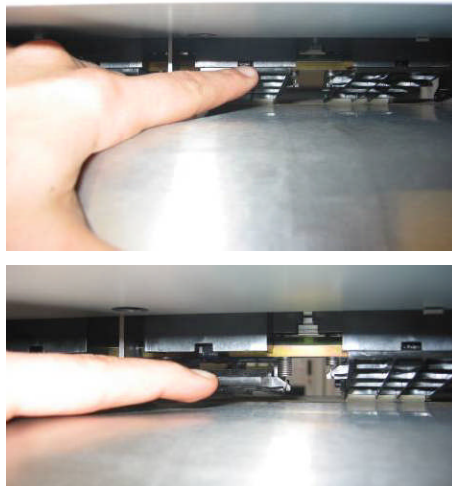
3.3.5 Pressure rollers disabler tool

The pressure roller disabler tool allows a pressure roller to be lifted while printing, thus providing the necessary space for media to expand.

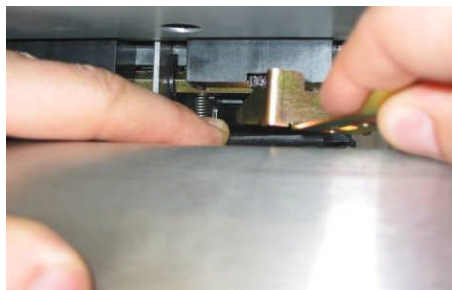
Step 1 : Take the pressure roller disabler tool as follows in your right hand.



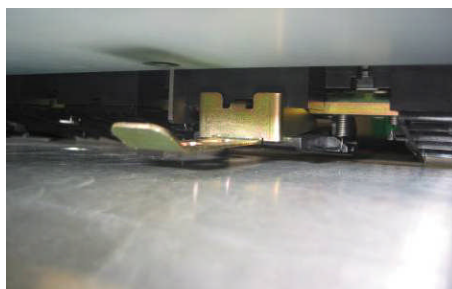
Step 2 : Pull the pressure roller (you want to disable) down with your left index finger.



Step 3 : Place the pressure roller disabler tool in the space created when pulling the pressure roller down.



Step 4 : The pressure roller disabler tool is now positioned as follows:



3.4 REFILLING INK CASSETTES

⚠ Caution ⚠

BEFORE USING THE INK AND CLEANING CASSETTES, BE SURE TO READ AND UNDERSTAND THE MSDS- SHEETS WHICH COME TOGETHER WITH THE INK AND CLEANING CASSETTES.

Follow the steps below to fill the ink cassettes.

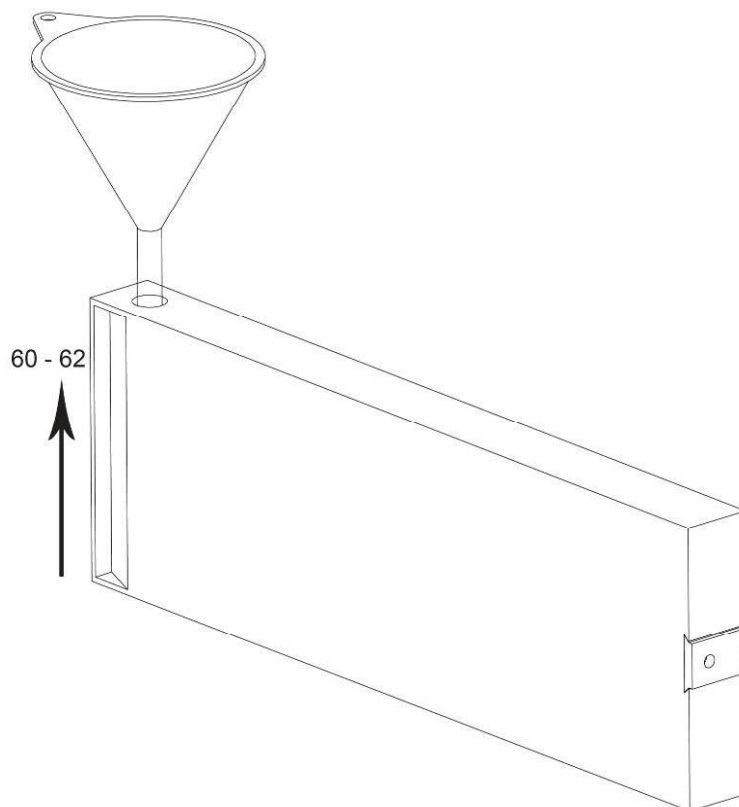
Step 1 : If the printer ON, make sure of the following

- Performing no printing or other operations.
- Make sure that the display on the operation panel shows the normal state.
- The MEDIA SET light on the operation panel goes off.

Step 2 : Pull out the little plug on the top of the open cassette.

Step 3 : Place the funnel in the opening of the cassette.

Step 4 : Fill the cassette to a level of 60 – 62 mm (measured from bottom of cassette) to obtain perfect printing quality.



Step 5 : Make sure that the display on the operation panel returns to normal status and the LED on the LED bar lights green (Present)

3.5 REPLACING THE CUTTING BLADE

3.5.1 Replacement time

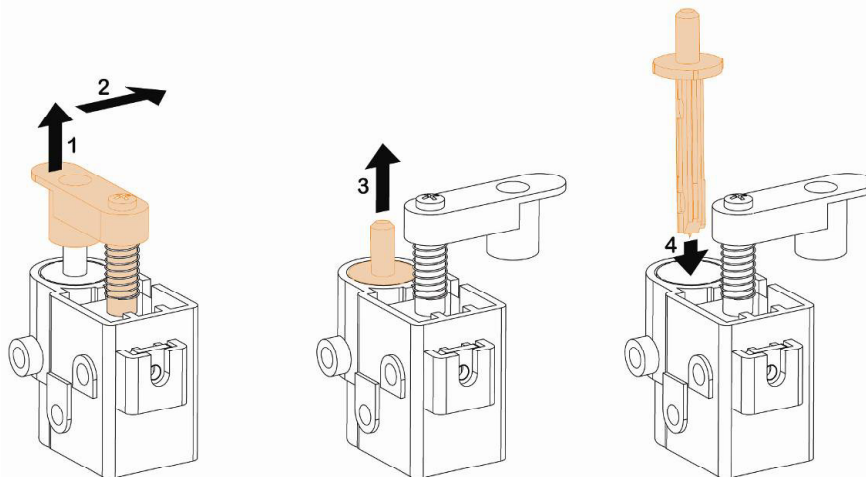
Replace the cutting blade under the following conditions.

- a. Media cannot be cut clearly
- b. When the cut edge is blurred

3.5.2 Replacement procedure

Follow the steps below to replace the cutting blade.

- Step 1 :** If the printer is ON, make sure of the following:
- Printing or other operations are not performed.
 - Make sure that the display shows the normal status.
 - The MEDIA SET light goes off.
- Step 2 :** Go to the H.Unlock menu (Setup Menu 5/7) and unlock the head.
- Step 3 :** Open the front cover.
- Step 4 :** While pressing the cutting blade holder tab, rotate the cutting blade holder lever in the direction shown on the picture.
- Step 5 :** Take out the cutting blade.



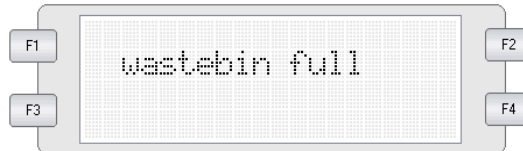
- 1 Cutting blade holder tab
- 2 Cutting blade holder lever
- 3 Pull down tab
- 4 Rotate lever as shown

- Step 6 :** Insert the new cutter into the media cutting blade holder.
- Step 7 :** While slightly pressing the cutting blade holder tab, return the cutting blade lever to its original position.
- Step 8 :** Close the front cover.
- Step 9 :** Press the [ENTER] key.
- The carriage returns to its original position and returns to menu 6/7.
- Step 10 :** Cutting blade replacement has been finished.

3.6 REPLACING THE WASTE BOTTLE

3.6.1 Replacement Time

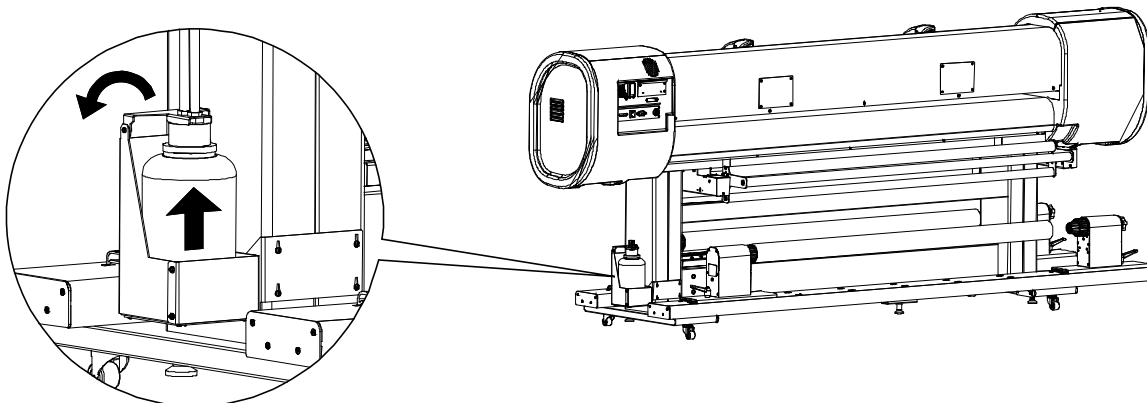
Replace the waste liquid tank when displaying following message.



3.6.2 Replacement Procedures

Follow the steps below to empty the waste bottle.

Step 1 : Open the lid and remove the waste bottle.



Step 2 : As soon as the waste bottle has been removed, the following message appears:



Step 3 : Pour the waste liquid in another bottle and dispose it according to the local regulations.

Step 4 : Replace the waste bottle.

Step 5 : Be sure to close the lid.

Step 6 : Press the [ENTER]-key to confirm that waste bottle is empty.

3.7 TRANSFER AND TRANSPORTATION

3.7.1 Transferring the printer

Follow the instructions below when you want to move the printer to another location (on the same floor).

Caution

**KEEP THE PRINTER HORIZONTALLY DURING TRANSFER.
DO NOT TURN THE PRINTER UPSIDE DOWN. DOING SO WILL CAUSE INK LEAKING INSIDE THE PRINTER. ALSO,
THE WARRANTY DOES NOT COVER MOVEMENT AFTER TRANSPORT.
HAVE TWO OR MORE PEOPLE TO TRANSPORT THE PRINTER.**

(1) Before the transfer

Notes

BE AWARE THAT THE FRONT SWINGBAR OF THE UNW/W 100 CAN ONLY BE LOCKED IF THE ETT IS NOT MOUNTED.

- Step 1 :** Power OFF the printer.
- Step 2 :** Make sure to switch OFF the Unwinder / Winder 100 system.
- Step 3 :** Make sure the head is in the right edge position (capping position).
- Step 4 :** Disconnect the power cable of the printer, winding system and all other cables.
- Step 5 :** Turn in the four feet of the printer.
- Step 6 :** Turn in the six feet of the Unwinder/Winder 100.
- Step 7 :** Transfer the printer to its new location.

Notes

THE CASTERS ATTACHED TO THE STAND HAVE BEEN DESIGNED FOR TRANSFERRING THE PRINTER FOR SHORT DISTANCES.

(2) After the transfer

Follow the steps below to prepare the printer to be used after the transfer.

- Step 1 :** Make sure that you place the printer on an adequate place.
- Step 2 :** Turn out the 4 feet of the printer. The printer must be positioned stable and horizontal. (Use a level)
- Step 3 :** Connect the power cable and other cables.
- Step 4 :** Perform a nozzle check to check if the printer head has clogged.
- Step 5 :** Perform a fine adjustment of image quality.

3.7.2 Transporting the printer

When you transport the printer, repack it in the original box and packing materials. This to protect it from vibration or impact.

Notes

When you transport the printer, contact your local MUTOH dealer for assistance.

You can transport a unit without making any cleanings! If you do flush out all ink unit has to be started up next day again.

If you are not using the unit for couple of days, it is best not to flush or clean the heads, to prevent drying out.

This is the correct way to transport your Viper is described below:

Step 1 : Power off the unit.

Step 2 : Remove all cables.

Step 3 : Lock the carriage with the special bracket that came with the unit or use tape so that the carriage is firmly fixed.

Step 4 : Take out all ink cassettes and replace them with dummy cassettes. These can be ordered with your Mutoh distributor.

Step 5 : Secure the dummy cassettes with tape so that they cannot come loose during transport

Step 6 : Empty the waste bottle.

Step 7 : Clamp all waste tubing's, clamps can be ordered with your Mutoh distributor.

Step 8 : Close all covers with tape, use a tape that does not leave any glue marks after removal.

Step 9 : Secure all moving parts of the unwinder / winder with tape.

Notes

BE AWARE THAT THE FRONT SWINGBAR OF THE UNW/W 100 CAN ONLY BE LOCKED IF THE ETT IS NOT MOUNTED.

Step 10 : Remove waste bottle or secure it with tape.

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4 PREPARATIONS BEFORE PRINTING

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4.1 USING MEDIA

4.1.1 Media range

Please refer to Mutoh's website (www.mutoh.be) for the media compatibility lists and much more information on using, handling media.



As one of the world's largest manufacturers of wide-format piezo inkjet printers, Mutoh Europe is committed to deliver total solutions: machine, RIP software, inks and media with matching profiles, i.e. anything you need to start production of top quality outputs in no time.

4.1.2 Cautions on handling media

When you handle media, please pay attention to the following.

Use recommended media in an appropriate environment. Following are the appropriate temperature and humidity ranges for printing.

	Temperature	Humidity
Recommended working environment	19°C - 26°C	30% to 60%
Rate of change	Within 2°C per hour	Within 5% per hour

Use media in an appropriate environment. Following are the appropriate temperature and humidity ranges for printing.

Do not use creased, damaged, torn, curled, or wrapped media.

The size of the media can change at a fixed ratio according to the temperature changes of the working environment. Before using media, place the media roll in the working environment for at least 24 hours, to have it match to the temperature and humidity of the working area.

Printing before the media could accommodate to the printing environment may cause media jams due to slippage or creases. This also adversely affects the quality of printing.

Media has a printable side and a non-printable side. If you print on a not printable side, blurring or slight touching occurs.

Do not touch the printable side of media. Moisture or oil from hands affects the printing quality.

Do not leave the printer for a long time with media loaded. The media will curl resulting in misalignment, media jams, or decreased printing quality. In particular, avoid this in winter, dry seasons, or during final printing.

Do not lose the box or wrapping bag. This to store media properly after use.

4.1.3 Precaution on storing media

Do not store media in high temperature, high humidity or direct sunlight.

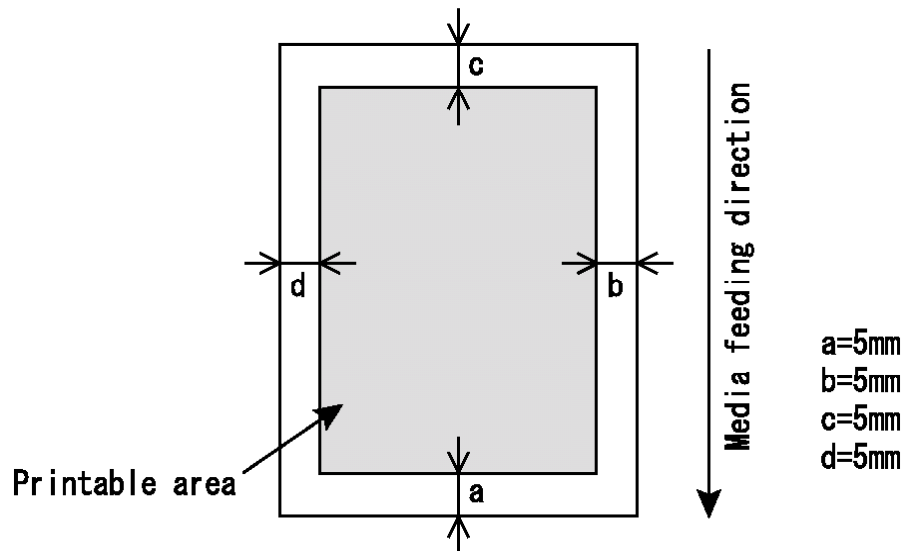
Store sheet media in the original bag after unpacking.

Unused roll media must be removed from the Unwinder, rewound tightly and stored in the original wrapping bag and the box.

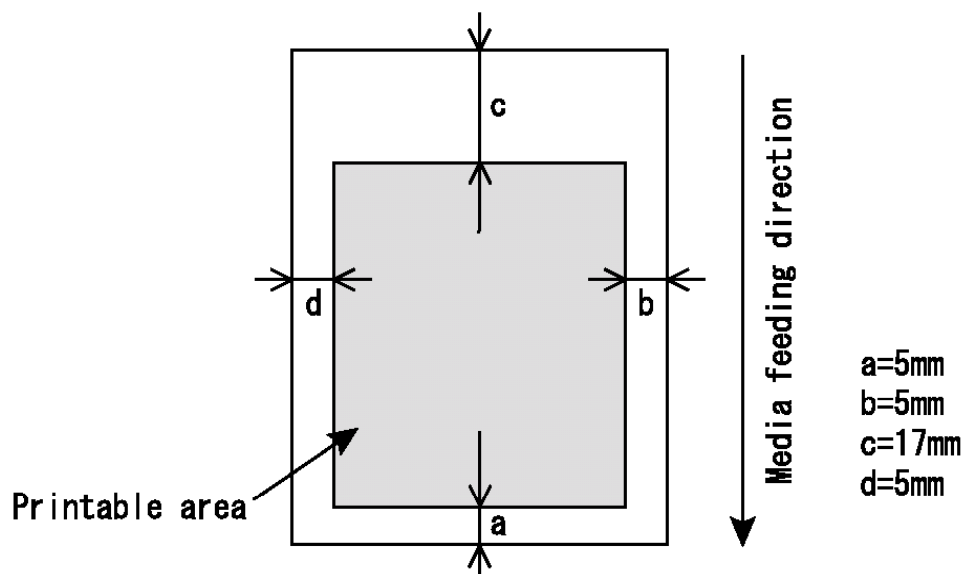
Do not wet media.

4.1.4 The printing area

4.1.4.1 Roll media



4.1.4.2 Sheet media



4.2 TESTPRINTING

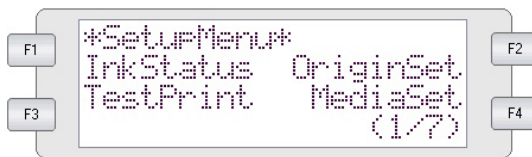
Follow the steps below to do a test print and confirm if your printer operates correctly.

Step 1 : Power ON the printer.

Step 2 : Load media.

Step 3 : Make sure that your printer is in normal [Ready to print] - status.

Step 4 : Go to Setup Menu 1/7 ► [F3] - TestPrint



Step 5 : Select which test pattern to print.



[F1] – Distance Check

Prints a pattern to check if the distance adjustment (“step”) is correct. If not, you can change it easily.

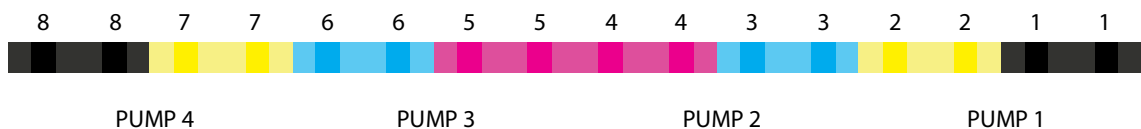
Please refer to the next chapter for more information on how to evaluate this pattern.



[F2] – NozzleCheck

Prints a test pattern to check if there are any nozzles missing. Depending on the amount of missing nozzles, perform a little, normal or powerful cleaning to regain all nozzles.

Please refer to chapter 4 for all details about head cleaning.





[F3] – Setup List

Prints a list with important information regarding the printer, such as InkStatus, Printer Config info, Media settings, Network settings, ...

InkStatus K:P100% C:P100% M:P100% Y:P100% K:P100% C:P100% M:P100% Y:P100% IntSupply = Off		Information SerialNo. = BT1E140839 Temp 24t Type = INK JET 85 [Error!] PROM = V v d 1.001mA 0:None [] 3:None [] NVRAM = V 1.00 1:None [] 4:None [] Opt.Memory = 256MB 2:None [] 5:None [] Heat Sys = V 0.00 Total area : 2712926.95 sq m	
Media Setup Dist.Adj = 100.00% Media = USER1 H.Height = Middle IntDryTime = 0sec Vacuum = High Thickness = 100um SheetSize = Length Top Feed = 0mm MediaCut = Off Roll/Sheet = Roll		Plot Mode PlotMode1 ColorMode = 4Col, Nomal PlotMode2 ColorMode = 4Col, Nomal Condition = 360x360 1p Condition = 360x360 1p Direction = BiDir Direction = BiDir HeadSet = Native HeadSet = Native Weaving = S J g n Weaving = S J g n ScanWidth = Data ScanWidth = Data RepeatCnt = 1 RepeatCnt = 1 Int. Time = 0.0sec Int. Time = 0.0sec HeadSpeed = Normal HeadSpeed = Normal	
Command Setup Step = 0.025mm Resolution = 360dpi (PositionOffsetX= 0mm) OnlineTimer = OFF (PositionOffsetY= 0mm)		PlotMode3 ColorMode = 4Col, Nomal PlotMode4 ColorMode = 4Col, Nomal Condition = 360x360 1p Condition = 360x360 1p Direction = BiDir Direction = BiDir HeadSet = Native HeadSet = Native Weaving = S J g n Weaving = S J g n ScanWidth = Data ScanWidth = Data RepeatCnt = 1 RepeatCnt = 1 Int. Time = 0.0sec Int. Time = 0.0sec HeadSpeed = Normal HeadSpeed = Normal	
Layout Setup JoInt = Off CutPos. = Data		Centro Mode = Bi Centro RollSet Disable	
Utility EdgePrn. = OFF ErrorDisplay = Off AutoCleaning MediaDet. = RollFeed Wait =OFF PowerOnCleaning= Off Print =OFF MediaWidth = 84mm BeforePrint =OFF SlantCh. = Off		FUNCTION CMY->BLACK = No Network IP Add = 000.000.000.000 Subnet = 255.255.255.000 Gateway = 000.000.000.000	



[F4] – Maintenance plot

Prints an overview of the lifetime of some parts in the printer. This to know if they must be replaced soon.

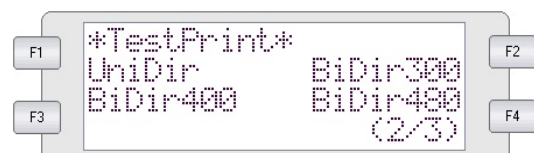
Visualizes the lifetime on the basis of stars.

E ★ ★ ★ ★ ★ F New part

E ★ F Part needs to be replaced

=====Maintenance Record=====

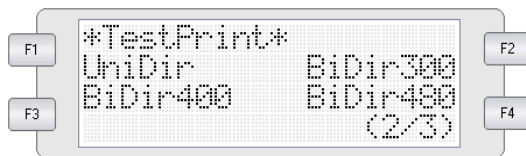
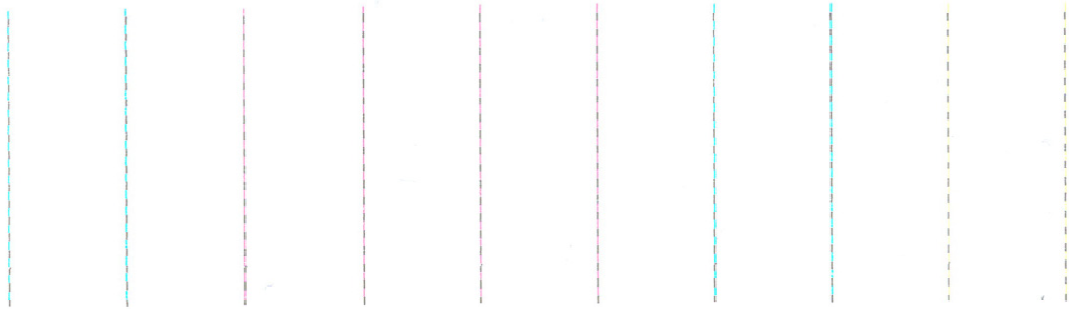
Version	: 1.00
InkCart.1	: E*****F
InkCart.2	: E*****F
InkCart.3	: E*****F
InkCart.4	: E*****F
InkCart.5	: E*****F
InkCart.6	: E*****F
InkCart.7	: E*****F
InkCart.8	: E*****F
Cutter Life	: E*****F
Page Count	: E*****F
Waste Ink	: E*****F
CR Motor Life	: E*****F
PF Motor Life	: E*****F
Head Life	: E*****F
Cleaner Life	: E*****F
Pump Life	: E*****F



[F1] – Uni Directional

Prints the uni-directional test pattern. The two-coloured lines must be in one perfect line.

If not, contact an Authorized Mutoh technician to readjust the heads.



[F2] – Bi Directional 300

Prints the bi-directional test pattern at 300 cps, for head height 1, 2 and 3.

Every block must be checked for stair case effects. In case this symptom occurs, contact an Authorized Mutoh technician to readjust the heads.

For when printing in 360, 720 and Fast 720.



[F3] – Bi Directional 400

Prints the bi-directional test pattern at 400 cps, for head height 1, 2 and 3.

Every block must be checked for stair case effects. In case this symptom occurs, contact an Authorized Mutoh technician to readjust the heads.

For when printing in 540 dpi & Fast 540.

SAME PATTERN



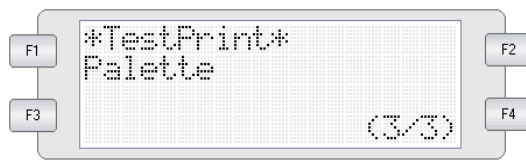
[F4] – Bi Directional 480

Prints the bi-directional test pattern at 480 cps, for head height 1, 2 and 3.

Every block must be checked for stair case effects. In case this symptom occurs, contact an Authorized Mutoh technician to readjust the heads.

For when printing in Fast360 dpi.

SAME PATTERN



[F1] – Colour Palette

Prints a test pattern to compare the colour settings of the computer with the printed colour of the printer. This palette is printed in the mode you are currently working (PrintMode settings). We recommend printing the palette in 360x360.



4.3 SET THE CORRECT DISTANCE ADJUST (STEP)

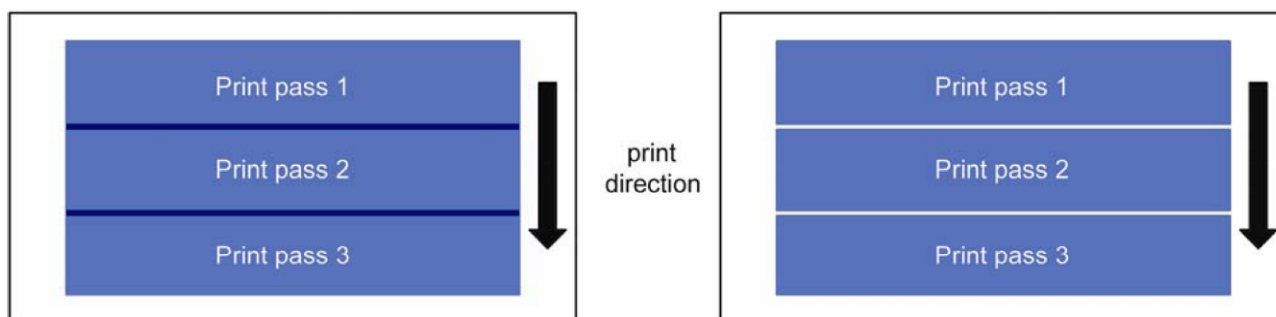
Obtaining constant printing quality on a Viper Extreme is not only determined by the working environment, the RIP, the profiles, the inks and the media which are used. One of the key factors for obtaining constant output quality is the correct distance adjustment, also called "Step", on your Mutoh inkjet printer.

4.3.1 Basics about the step

Every image is printed in several print passes. After every pass, the media is fed an amount of millimetres. When the step is not set correctly, the passes will overlap each other or will not be printed precisely next to each other which results in white bands between two print passes.

Therefore a function called distance adjust (or step), is added to the menu to control this feed operation.

Refer to the table below for visual support.



The passes overlap each other
► Step between the print passes is too small.

the passes are printed too far from each other
► Step between the print passes is too large.

⚠ Notes ⚠

We recommend to start printing with a step of 100.00% and to adjust it afterwards. Once a step is set for a particular media it will not change on following conditions:

- The step is only applicable on the printer in question and not interchangeable.
- The media manufacturer does not change any specifications (especially backing) of the media.
- The standard take-up system is used in combination with the I² technology.
- The optional Unwinder/winder 100 is used.



Please refer to the next chapter to know where and how to change the step.

4.3.2 How to determine and change the step

Step 1 : Power ON the printer.

Step 2 : Load the media to print on.

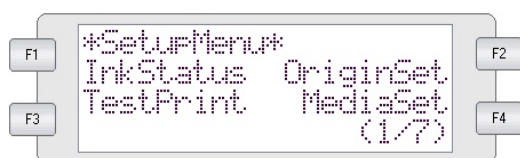
⚠ Notes ⚠

BE SURE TO TIGHTEN THE MEDIA TO THE WINDER 100 BEFORE SETTING THE STEP. THIS BECAUSE THE STEP WILL BE DIFFERENT WHEN PRINTING ROLL-TO-SHEET THAN WHEN PRINTING ROLL-TO-ROLL.

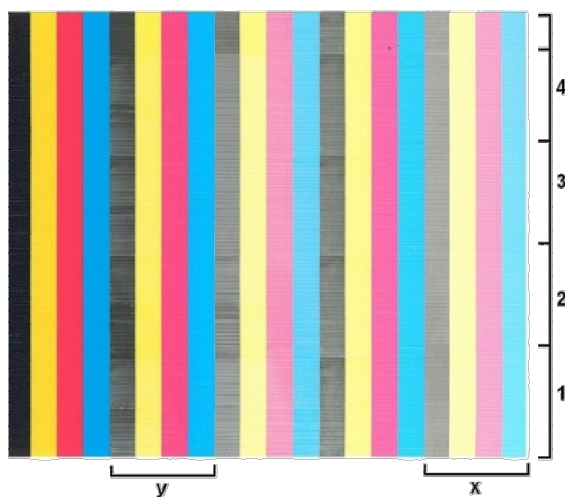
Step 3 : Perform a NozzleCheck to be sure all nozzles are present. If not, perform the necessary cleanings.

Step 4 : Set the step to 100.00%

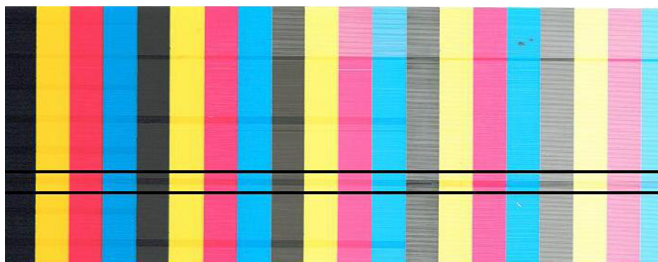
Step 5 : Print the test pattern. (Setup Menu 1/7 > TestPrint [F3] > Dist.Check [F1])



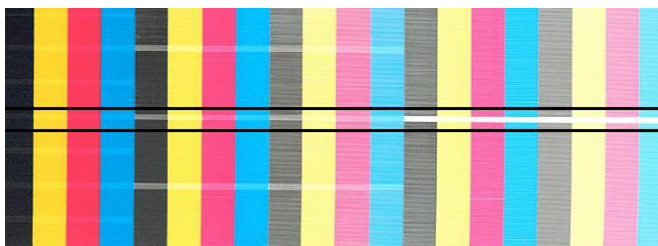
Step 6 : To evaluate the print, you look for gaps or overlaps between the different passes (1-4). The direction of the adjustment (increase or decrease the step adjust value) is the easiest to check in the X-rows. To check the quality, the Y rows is the standard.



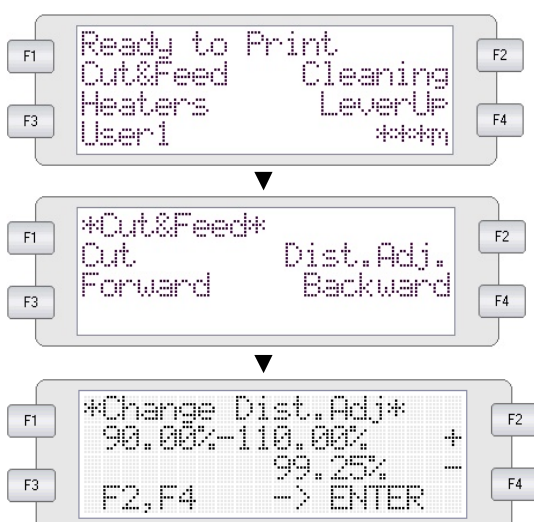
Step 7 : Step is too small ► overlap visible between passes



Step is too big ► gap visible between passes



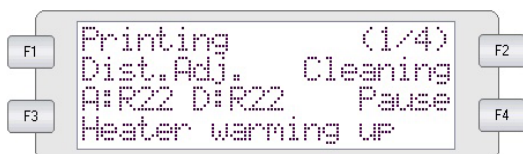
Step 8 : Change the step if necessary.



Step 9 : Print the test pattern again until no gap or overlap is visible anymore.

4.3.3 How to change the step on the fly.

Step 1 : Press **F1** while printing.

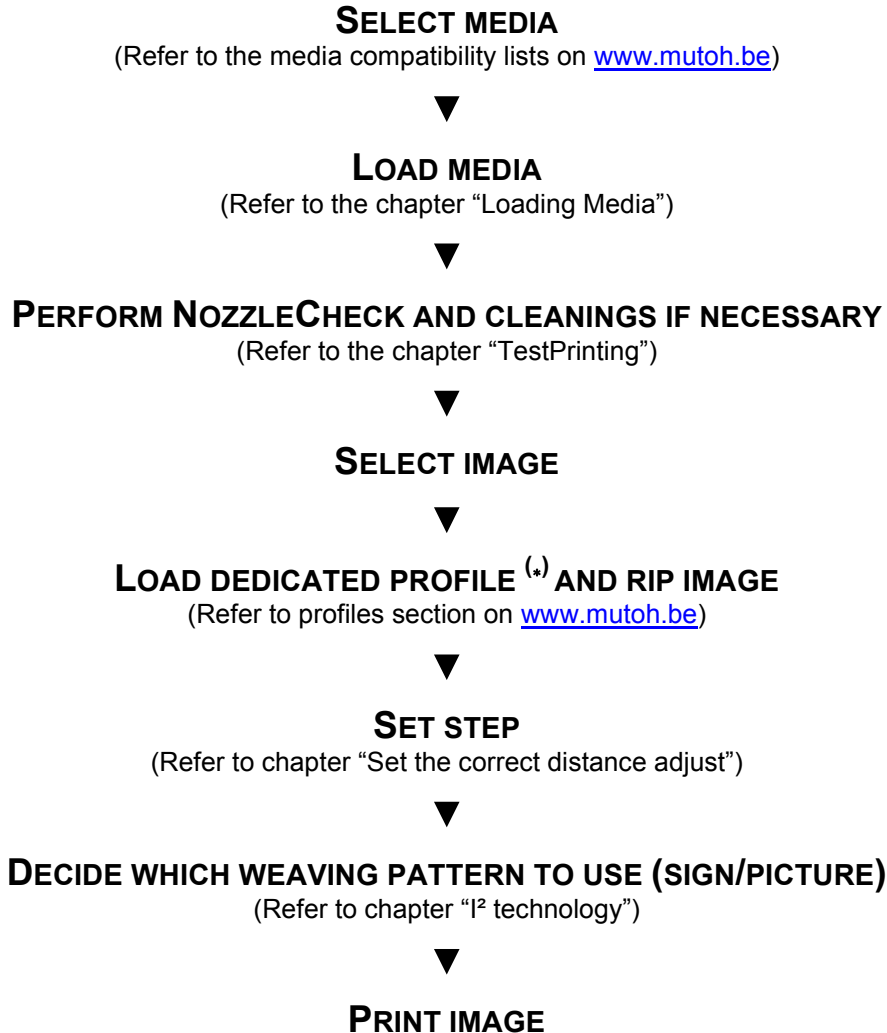


Step 2 : Press **F2** or **F4** to change the step.



4.3.4 Printing flow

The following flowchart gives you a view on which steps must be taken to make a print. This is a very short summary of what must be done.



* It is highly recommended to use one of the profiles Mutoh is making available on the website. A lot of parameters are included.

The most important ones are:

Ink an colour management related

Ink Restrictions
Linearization
Ink limits
ICC Profile

PrintMode related

Resolution
Amount of passes
Unidirectional – Bi Directional
Weaving ON – OFF

Media related

Heater settings
Media thickness
HeadHeight

The file name of most profile is build up as follows:

Viper Extreme_Mutoh_Highspeed_KCMYKCMY_360x360DDVarBI2P

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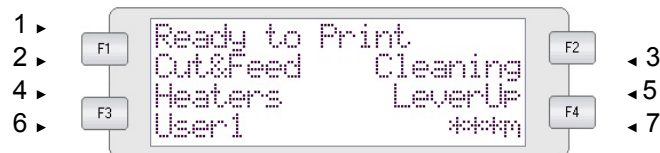
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5.1 HOW TO WORK IN THE MENU

5.1.1 Main screen

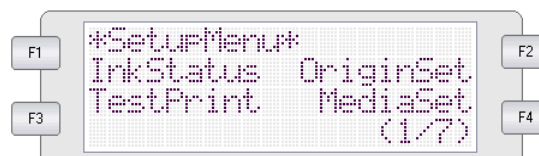
Indicates that the printer will draw its print data when the media is loaded.
You can also make settings concerning printing using the operation panel.
The LCD monitor displays the content as follows.



N°	Position	Description
1	1st line	Displays the current status of the printer. Depending on the status, the contents will be displayed in 2 to 4 lines.
2	Left of 2nd line	Displays the function assigned to [F1] key.
3	Right of 2nd line	Displays the function assigned to [F2] key.
4	Left of 3rd line	Displays the function assigned to [F3] key.
5	Right of 3rd line	Displays the function assigned to [F4] key.
6	Left of 4th line	Displays the currently set media type.
7	Right of 4th line	Displays the approximate amount of remaining media that is currently set. (Units: m) However, the amount displays only when either "Roll media 1", "Roll media 2", or "Roll media 3" is selected in the Roll media setting menu.

5.1.2 Menu screen

In the SetupMenu, changes can be made to the printer settings.
The LCD monitor displays:





N°	Position	Description
1	1st line	Displays the setting menu name currently set.
2	Left of 2nd line	Displays the function assigned to [F1] key.
3	Right of 2nd line	Displays the function assigned to [F2] key.
4	Left of 3rd line	Displays the function assigned to [F3] key.
5	Right of 3rd line	Displays the function assigned to [F4] key.
6	4th line	Displays the currently available functions of the [F1] key to the [F4] key. Displays the page status if there are multiple pages for the currently displayed setting menu.

5.1.3 Changing the printer status

To change the printer status, follow the steps below.

5.1.3.1 From main screen to menu screen

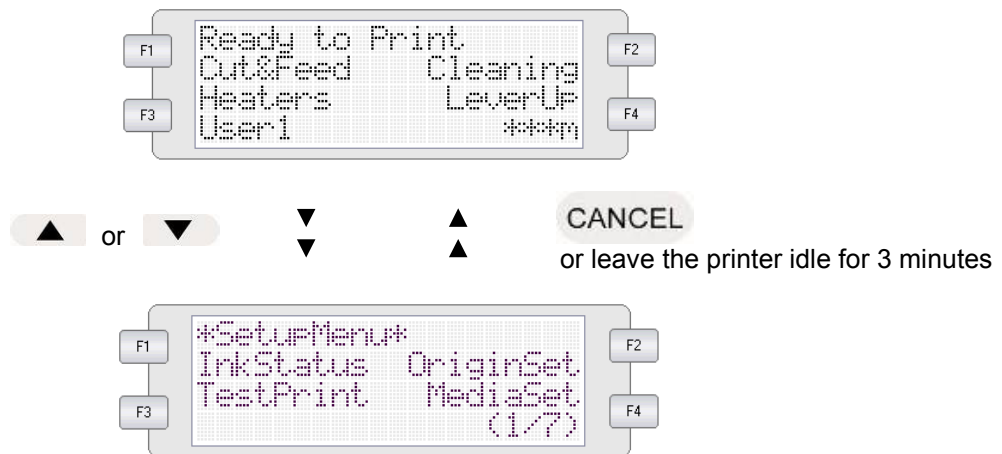
Press either  or  when the printer is in the main screen to go to menu screen 1/7 – 7/7

5.1.3.2 From menu screen to main screen

To switch from a menu screen to the main screen, take following actions:

Press the [CANCEL] key.

Leave the printer for 3 minutes when the status is in the setting menu display.



5.2 OPERATION PANEL IN STANDBY MODE

This section describes functions operated on the operational panel when the printer is in the normal status.

⚠ Notes ⚠

FOR INFORMATION OF THE NAME AND FUNCTION OF EACH KEY, REFER TO "OPERATION PANEL".

5.2.1 **[F1] – Feeding, Cutting media and Step Adjust**

When you want to feed media forward or backward, follow the steps below:

- Step 1 :** Verify the following regarding the condition of the printer.
- ▶ It is currently not printing.



- Step 2 :** Press the [F1] key of the operation panel.
- ▶ To shift to the Cut&Feed menu.



- Step 3 :** Press the [F3] key or the [F4] key.
- ▶ The product will perform following operations:

Setup items	Key name	Parameters	Description
Cut & Feed	F1	Cut	Cut media
	F2	Dist.Adj.	Set step
	F3	Forward	Feeds media forward.
	F4	Backward	Feeds media backward.

⚠ Notes ⚠

IF "TAKE-UP ROLL" OR [ROLLFEED] HAS BEEN SET IN THE MEDIA DETECTION SETUP MENU, THE PRODUCT WILL NOT OPERATE EVEN IF THE [F4] KEY HAS BEEN PRESSED.

5.2.2 [F2] - Cleaning the heads

When there are some missing nozzles, a cleaning must be done. Depending on the quantity of missing nozzles and which head, a little, normal or powerful cleaning on head 1-2, head 3-4 or ALL could be done.

- Step 1 :** Verify the following regarding the condition of the printer.
- It is not currently printing



- Step 2 :** Press the [F2] key of the operation panel.
- To shift to the cleaning menu.



- Step 3 :** Press the [F1] key or the [F2] key.
- The product will perform following operations:

Setup items	Key name	Parameters	Description
Cleaning	F1	ALL	Clean all heads
		Pump 1	Only clean head 2 and 3
		Pump 2	Only clean head 6 and 7
		Pump 3	Only clean head 1 and 4
		Pump 4	Only clean head 5 and 8
	F2	Little	Perform a little cleaning
		Normal	Perform a normal cleaning
		Powerful	Perform a powerful cleaning
	ENTER	Start the cleaning cycle	

- Step 4 :** Press the [ENTER] key to start the requested cleaning.

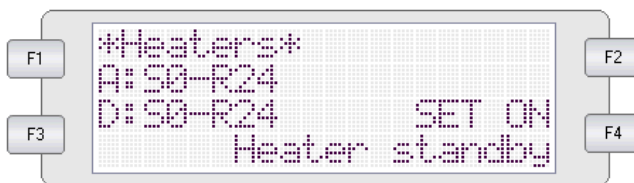
5.2.3 [F3] - Controlling the heater elements

If you want to change or check the heater elements, follow the steps below.

- Step 1 :** Verify the following regarding the condition of the printer.
- ▶ It is not currently printing



- Step 2 :** Press the [F3] key of the operation panel.
- ▶ To shift to the heater menu.



The 'heater message' will be one of the following:

- Heater standby
- Heater warming up
- Heater ready

'A' ▶ heater.

'D' ▶ dryer.

'S' ▶ Set-temperature (requested temperature).

'R' ▶ Real-temperature (actual temperature).

5.2.3.1 Change the heater temperature

To change the temperature of the heater, press the [F1] key. The display will mention the following:



Press the [F2] key to decrease the temperature.

Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.

Press the [CANCEL] key to leave the menu without changing the heater settings.

5.2.3.2 Change the dryer temperature

To change the temperature of the dryers, press the [F4] key. The display will mention the following:



Press the [F2] key to decrease the temperature.

Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.

Press the [CANCEL] key to leave the menu without changing the rear heater settings.

5.2.3.3 Activate/ deactivate heaters.

In the main heater menu, press the [F4] key to activate or deactivate all heating elements.

In case the heating elements are activated, the display will mention "SET OFF". Press the [F4] key to deactivate the heating elements. The display will mention "SET ON".

In case the heating elements are deactivated, the display will mention "SET ON". Press the [F4] key to activate the heating elements. The display will mention "SET OFF".

Please note that after finishing a printing job (and no other print job is sent to the printer the heating elements will keep their temperature for approximately 15 minutes. After 15 minutes the heating elements are powered OFF.

The heaters will also automatically switch OFF after an idle period of 30 minutes.

5.2.4 [F4] - Operating the pressure rollers

When you want to monitor the up and down movement of the pressure rollers follow the steps below:

Step 1 : Press the [F4] key.

- The printer works as follows.



Status of the printer	Operation after the [F4] key has been pressed
The pressure rollers have been lowered The MEDIA SET lamp switches OFF.	The pressure rollers are lifted The MEDIA SET lamp will switch on (orange).
The pressure rollers have been raised. The MEDIA SET lamp switches ON (orange).	The pressure rollers are lowered. The MEDIA SET lamp will switch off.



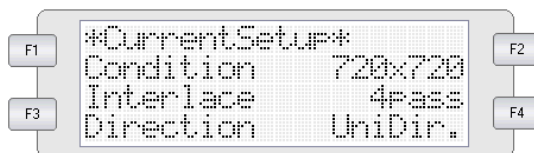
Notes
YOU CAN ALSO MONITOR THE UP AND DOWN MOVEMENT OF THE PRESSURE ROLLERS USING THE FOOT SWITCH INSTEAD OF THE OPERATION PANEL.

5.2.5 [ENTER] - Print mode check

Use the following procedure to check the print mode currently set:

Step 1 : Press the [ENTER] key.

- The operation panel displays the following information for three seconds:



N°	Position	Description
1	Condition	Displays the printing quality
2	Interlace	Displays the interlace method
3	Direction	Displays the printing

Step 2 : When the printing mode display closes, the product changes to its main screen.

5.2.5.1

5.2.6 Start printing while waiting for heaters



A new option called "PrintStart" is available in the Heater status menu. Normally you wait until the heaters are warmed up, when you choose this option, printing will start immediately. However, the heaters will continue to warm up in order to reach the requested temperature.

⚠ Notes ⚠

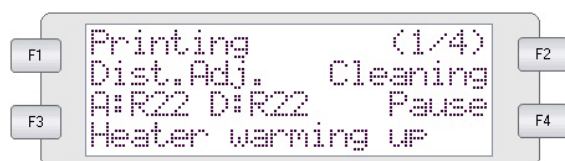
For the best print output, wait until the heaters are warmed up before you start printing

5.2.7 Pause function while printing.

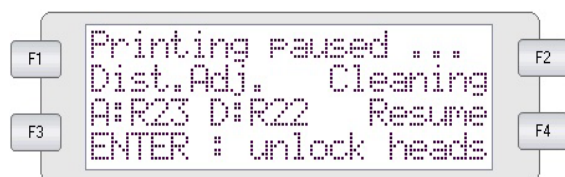
⚠ Notes ⚠

It is not recommended to open the cover while printing.
When pausing the print job, heaters switch off after 15 minutes. When resuming the print job after 15 minutes, you must reset the heaters to their correct setting.

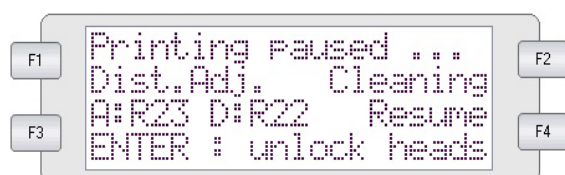
While printing you can pause and resume the print job by pressing the [F4] key



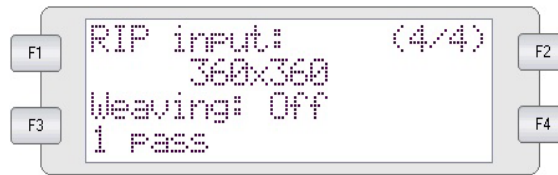
When pressing "pause" the printer will finish the current band. The carriage will stay still at the end of the band for about 15s. After 15s the carriage will move to the carriage station and the heads will be capped in. if you open the cover within these 15s you can move the carriage. Please note that when closing the cover again after moving the carriage, the printer will move the carriage SLOWLY back to the correct print position. While this move is in progress, the "Cover Open" message stays on the display.



While pausing a print job, you can unlock or lock the heads by pressing ENTER. This to perform manual maintenance. Press Resume to resume the print job. You can also change the Dist. Adj. or start a cleaning.

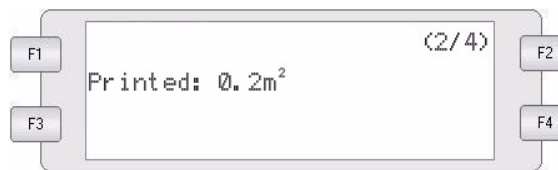


During printing, extra information about the current job is available. This information is shown in the "Printing" menu on page 4.

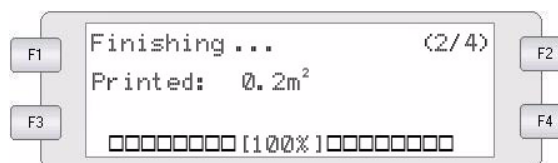
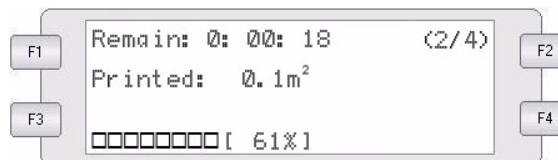


Two situations are possible

No length information provided with the job. The printer cannot know progress and remaining time. However, size of the already printed area is shown.



Length information is provided; the printer calculates progress and remaining time. The correctness of this depends on the correctness of the provided information.



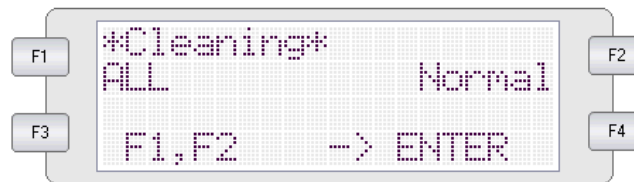
5.2.8 Cleaning

While printing, it could be possible that some nozzles drop out, in that case, perform a little, normal or powerful cleaning.

Please follow the steps below to perform a cleaning.

When there are some missing nozzles, a cleaning must be done. Depending on the quantity of missing nozzles and which head, a little, normal or powerful cleaning on head 1-2, head 3-4 or ALL could be done.

Step 1 : Press the [F2] key of the operation panel to shift to the cleaning menu.



Step 2 : Press the [F1] key or the [F2] key.
 ○ The product will perform following operations:

Setup items	Key name	Parameters	Description
Cut & Feed	F1	ALL, pump 1 – pump 2 – pump 3 – pump 4	Clean ALL heads or head couple one or two
	F2	Little, normal, powerful	Set the intensity of a cleaning

Step 3 : Press the [ENTER] key to start the requested cleaning.

5.3 OPERATION PANEL AFTER PRINTING

5.3.1 Cut off media with the printer knife

⚠ Notes ⚠

When using the media retainers, do not use the cut function.

Roll media is automatically cut after printing when "Auto" is set on the cut media menu and roll media has been set.

When the operation panel is in the normal status, and the product is in the following conditions, the media can be cut on the desired position:

When roll media has been set:

If "OFF" is set on the cut media menu

If "Take Up Roll" is set in the media detection setup menu

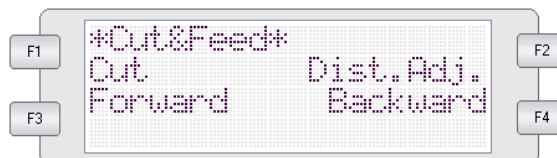
When sheet media has been set

Step 1 : Make sure that the MEDIA SET lamp on the operation panel is OFF.

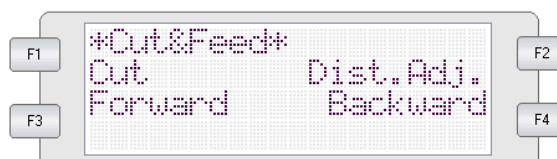


Step 2 : Press the [F3] key.

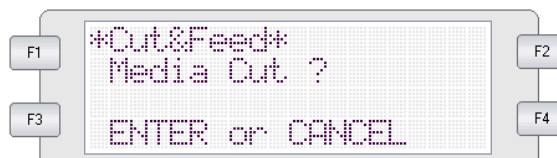
➤ Shift to the cut and feed menu.



Step 3 : Press the [F3] or [F4] key to feed the media to the desired position.



Step 4 : Press the [F1] key.



➤ The media is cut when pressing [ENTER].

⚠ Notes ⚠

If the front edge of the roll media is not straight when you load new roll media, must cut its edge. Cutting blades are consumable. Replace them at regular intervals following "Replacing the cutting blade".

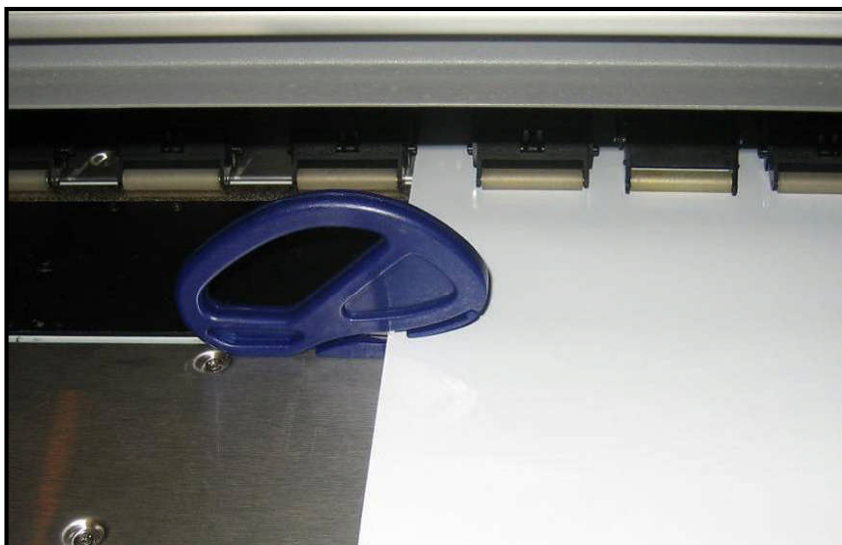
5.3.2 Manually cut off media

This section explains how to cut the media manually.
Cut the media according to the following procedure.

Step 1 : Feed media to the desired position using the [F3] and [F4] key.



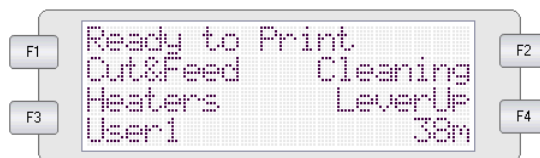
Step 2 : Cut the roll media following the cutting groove.



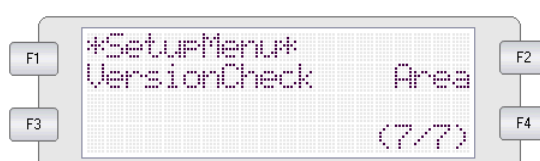
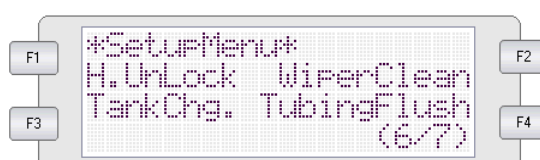
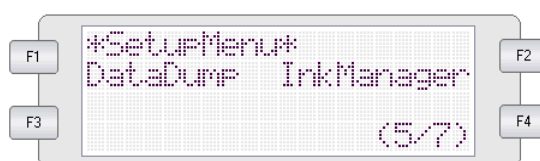
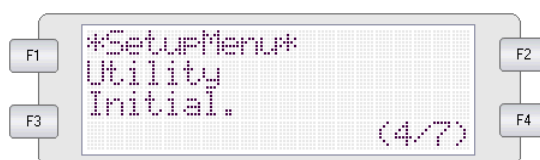
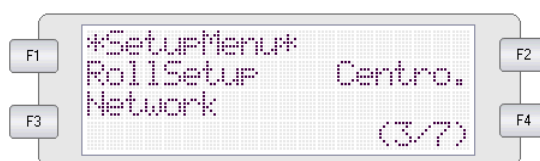
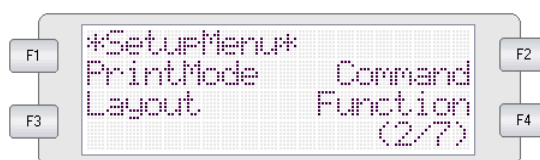
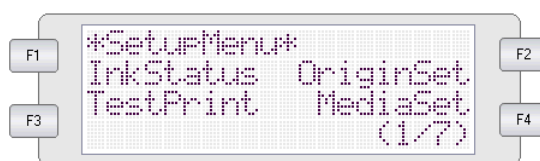
5.4 MENU OVERVIEW (1/7 – 7/7)

This section describes how to set the Menu settings and setup items.

Step 1 : Make sure that the operation panel is normal.



Step 2 : Press the [MENU ▲] or [MENU ▼] key.
 ○ The screen shows following Menu.



⚠ Notes ⚠

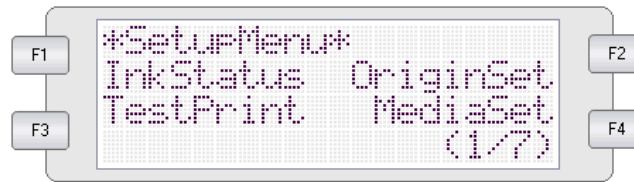
The network settings menu is available if a network interface cable is connected.
The items on the File Management menu are displayed if a hard disk has been installed in the product.

Setup items	Parameters	Description
Setup menu (1/7)	Ink status	Displays the information (ink status) for each ink cassette installed in the ink cassette slot.
	Origin setting	Sets the printing start position (origin) for printing data.
	Test print	Performs test printing.
	Media setting	Makes various media settings.
Setup menu (2/7)	Print mode setting	Makes various print mode settings.
	Command setting	Makes various printer command settings.
	Layout setting	Makes various layout function settings.
	Function setting	Makes various processing printing data settings.
Setup menu (3/7)	Roll setting	Makes various roll media settings.
	Centronics setting	Sets Centronics Interface communication mode.
	Network setting	Makes the settings for the network interface.
Setup menu (4/7)	Utility setting	Makes various advanced function settings.
	Initialize setting	Returns the parameters to factory default value.
	File management	Makes various settings for the processing method of the printing data sent from the computer to the installed hard disk.
Setup menu (5/7)	Data dump	For Authorized Mutoh Service Technicians only
	Ink Manager	Manages the ink configuration, smart chip management system and other ink related settings.
Setup menu (6/7)	Head Unlock	To replace the cutting blade.
	Wiper clean	Clean the wiper.
	Tank change	To replace the tank.
	Tubing Flush	Makes various tubing flush settings
Setup menu (7/7)	Version Check	Ability to view the installed firmware version.
	Area	Check printed area in m ²
Setup menu (1/7-7/7)	-	[CANCEL] key: Cancel the setup menu, and shift to the normal condition.

⚠ Notes ⚠

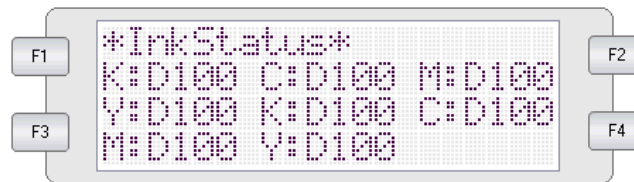
By using the software server RIP (option), some setups for printing can be set by the RIP. For details, refer to the operation manual of the products.

5.4.1 Setup Menu 1/7



5.4.1.1 Ink status menu

The InkStatus menu gives all information regarding the 8 ink cassettes in the slots.



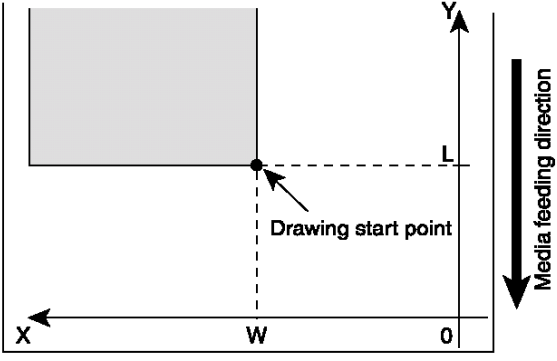
Setup items	Parameters	Description
Ink Status	Ink status for the ink cassette slots 1 – 8.	<ul style="list-style-type: none"> • Display <ul style="list-style-type: none"> ➤ Line 2: ink cassette slots 1 – 3 ➤ Line 3: ink cassette slots 4 – 6 ➤ Line 4: ink cassette slots 7 - 8 • Symbols <ul style="list-style-type: none"> ➤ Ink Colour: K : Black, C : Cyan, M : Magenta, Y : Yellow, c : Light Cyan, m : Light Magenta, W = Cleaning Liquid ➤ Type of Ink: <ul style="list-style-type: none"> ▪ D = Dye ▪ P = Pigment ▪ X = Cleaning Cassette ➤ Ink Remaining: 100(%) must always remain 100% because you are working with a BIS system or open cassettes.
	-	[CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.1.2 Origin setup menu

Set the printing start position (origin) for printing data.

Set this when you want to re-print to blank area of the printed media by changing the layout of the printing data.



Setup items	Parameters	Description
Origin setting	<ul style="list-style-type: none"> • L: Media feed value • W: Print head movement value (Unit: mm) 	<p>Changes the print head position and media feed amount by operating the following keys.</p> <ul style="list-style-type: none"> • [F1] key: Feeds media forward. • [F2] key: Moves the print head to the left. • [F3] key: Feeds media backward. • [F4] key: Moves the print head to the right. • [ENTER] key: Determines the setup values then returns to the previous hierarchical menu. 
	-	[CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

⚠ Notes ⚠

When printing data from the hard disk, the printing will start from the same start position as when the printing data was written, regardless of the home position setting value.

⚠ Notes ⚠

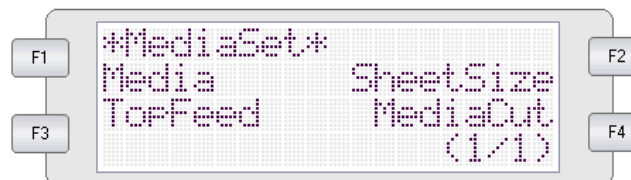
The origin setup menu automatically ends without pressing any key for a certain period, to avoid drying the print head.

5.4.1.3 Test print menu



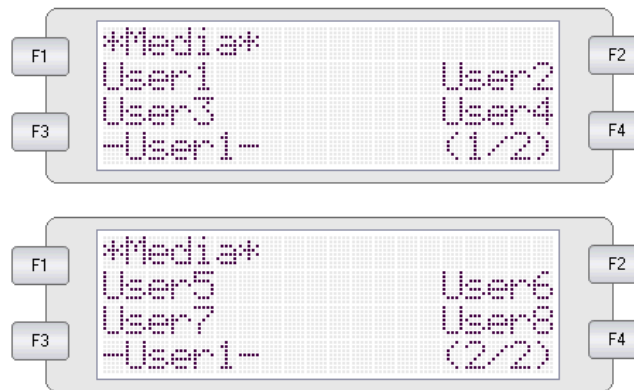
Setup items	Parameters	Description
TestPrint (1/3)	Distance Adj. Check	Print distance adjustment check pattern
	NozzleCheck	Print nozzle check pattern
	Setup	Print setup list
	Maintenance	Print maintenance list
TestPrint (2/3)	UniDir	Print uni-directional adjustment pattern
	BiDir300	Print bi-directional test pattern at 300 cps
	BiDir400	Print bi-directional test pattern at 400 cps
	BiDir480	Print bi-directional test pattern at 480 cps
TestPrint (3/3)	Palette	Print colour palette
TestPrint (1/3-3/3)	-	[CANCEL] key: shift to the previous hierarchy menu.

5.4.1.4 Media setup menu



Setup items	Parameters	Description
Media setting	Type	Sets the media type used for test printing.
	Sheet size	Sets the method of detecting the size of the media when sheet media has been loaded.
	Top feed	Sets the amount of media to be fed when printing begins. Make this setting when using roll media.
	Media cutting	The method of cutting the media after printing is set here.
	-	[CANCEL] key: to shift to the previous hierarchy menu.

5.4.1.5 Media type menu



Setup items	Parameters	Description
Types (1/2)	User media 1	Sets the type of media used to print. For setup values of printing operation, eight settings of "user media 1-8" can be set. Refer to 'User media menu'
	User media 2	
	User media 3	
	User media 4	
Types (2/2)	User media 5	
	User media 6	
	User media 7	
	User media 8	
Type (1/2-2/2)	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Media setup menu'

5.4.1.6 User media menu

Make various settings on user defined media.

In the User media menu, for each setup value of following printing operation, eight settings of "user media 1-8" can be set.

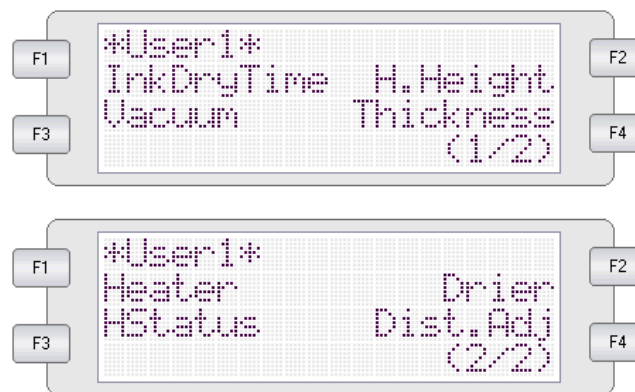
⚠ Notes ⚠

When using media other than the recommended media (user media), the following problems may occur:

- Media detection error
- Oblique, torn, and creased media
- Media jams
- Decrease in print quality due to blurring, missing, or smudging of ink
- End detection error of roll media

Problems caused by using media other than the recommended will void the warranty.

For more information, contact your local MUTOH dealer.



Setup items	Parameters	Description
User media 1-8 (1/2)	InkDryTime	In order to let the ink for the printing dry, the time between the end of the print and the beginning of the next print is set. → Refer to 'InkDry menu'
	HeadHeight	Sets the distance (head height) between the print head and the media. → Refer to 'Head Height menu'
	Vacuum	Makes the setting for the sucking power of the media to the printing board, to keep the media flat while printing → Refer to 'Vacuum menu'
	Thickness	Sets the thickness of the media you are using. → Refer to 'Thickness menu'
User media 1-8 (2/2)	Heater	Sets the temperature of the Heater. → Refer to 'Heater Menu'
	Drier	Sets the temperature of the Drier. → Refer to 'Drier Menu'
	HStatus	Checks the temperature of Heater and Drier. → Refer to "HStatus Menu"
	Dist.Adj	Performs various settings for media feed compensation. → Refer to 'Media feed compensation menu'

5.4.1.7 Ink dry time menu

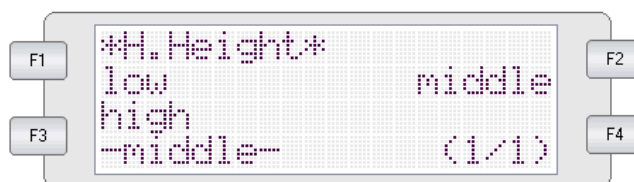
Set the waiting period between the end of operation and the start of next printing in order to let the printed media dry.



Setup items	Parameters	Description
InkDryTime	0 to <30 sec. > to 270 sec. to 60 min.	Operate the following keys to change the InkDryTime. <ul style="list-style-type: none"> • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'User media menu'

5.4.1.8 Head Height menu

Set the distance (head height) between the print head and the media.
According to the media thickness, 3 head height levels are available.



Setup items	Parameters	Description
HeadHeight	Low	This setting makes a distance of 1.2 mm between the head and the media.
	Middle	This setting makes a distance of 2.2 mm between the head and the media.
	High	This setting makes a distance of 4.0 mm between the head and the media.
	-	Refer to 'User media menu'

⚠ Notes ⚠

Set the height of the head in relation to the amount of cockling of the unit.

- Always try to work with the lowest head height to obtain the best printing quality.
- When the print heads touch the media while printing, set the head height one setting higher.

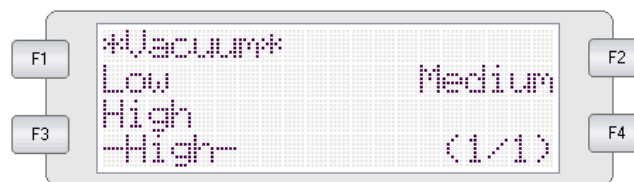
5.4.1.9 Vacuum menu

⚠ Notes ⚠

It could happen that digital transfer media starts to cockle when the ink comes into contact with the media. To minimize the cockling, please use this mode to suck the media onto the print platform. The default setting for this unit is set to 'HIGH'.

⚠ Notes ⚠

We recommend you to select "HIGH" in the vacuum menu. Only use "Low" or "Medium" when using sheet media.



Setup items	Parameters	Description
Vacuum	Low	The suction of the media to the print platform is low.
	Medium	The suction of the media to the print platform is medium.
	High	The suction of the media to the print platform is high. Use this setting when media is cockling.
	-	After setting, shift to the previous hierarchy menu. Refer to 'User media menu'

5.4.1.10 Thickness menu



Setup items	Parameters	Description
Thickness	50µm-<100µm>-1500µm	<p>Operate the following keys to change media thickness.</p> <ul style="list-style-type: none"> • [F2] key: to increase the setup value. • [F4] key: to decrease the setup value. • [ENTER] key: to confirm the setup value and to shift to the previous hierarchy menu. • [CANCEL] key: to cancel the setup value and to shift to the previous hierarchy menu. <p>Refer to 'User media menu'</p>

⚠ Notes ⚠

It is very important to set the correct media thickness to obtain good printing quality.

5.4.1.11 Heater menu



⚠ Notes ⚠

The default heater setting is set to '50°C.

The function of the heater (A): Warming the transfer media before entering the pressure rollers. The pre-expansion helps to minimize media cockling.

We recommend setting the pre-heater temperature at 50°C. This to expand the transfer media before reaching the pressure rollers.

5.4.1.12 Drier menu



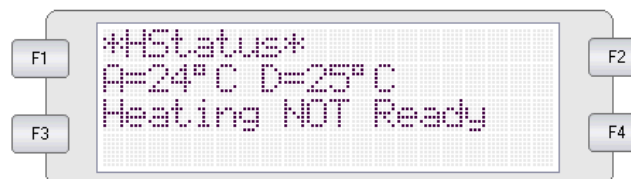
⚠ Notes ⚠

The default drier setting is set to '50°C.

The function of the drier (D): Heating the printed transfer media evaporates the water fast enough so that the print is touch-dry when wound.

5.4.1.13 HStatus menu

Check the temperature of the heating elements.



⚠ Notes ⚠

A stands for the Heater.

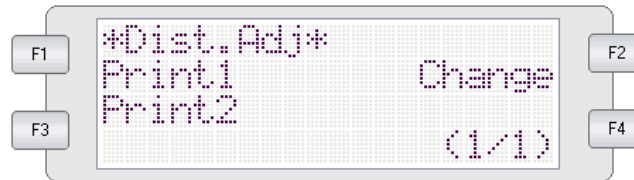
D stands for the Dryer.

Press the [CANCEL] key to go to the previous menu.

5.4.1.14 Distance adjustment menu

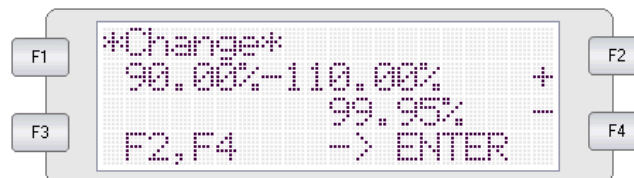


For details of the distance adjustment, refer to "Distance adjustment".



Setup items	Parameters	Description
Dist.Adj	Print1	Performs printing by media feed compensation. Prints a correction pattern with a width of $\pm 0.20\%$ (in steps of 0.10 %) around the centre of the correction value currently set. Refer to 'Printing by Media feed compensation menu'
	Change	Changes the media feed compensation value. The menu changes to the Change Media Feed Correction Value menu. Refer to 'Change media feed compensation value menu'
	Print2	Performs printing by media feed compensation (for fine adjustment). Prints a correction pattern with a width of $\pm 0.02\%$ (in steps of 0.01%) around the centre of the correction value currently set. Refer to 'Printing by Media feed compensation menu'
	-	[CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'User media menu'

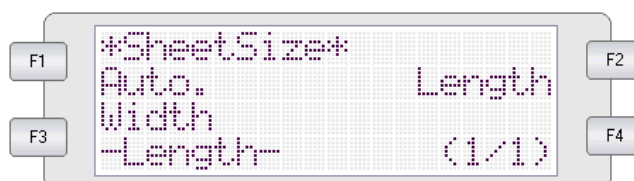
5.4.1.15 Change menu





Setup items	Parameters	Description
Change	90.00%-<100.00%>-110.00%	Operate the following keys to changes the media feed compensation value. <ul style="list-style-type: none"> • [F2] key: to increase the setup value. • [F4] key: to decrease setup value. • [ENTER] key: Confirm setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancel setup value, shift to the previous hierarchy menu. Refer to 'Media feed compensation menu'

5.4.1.16 Sheet size menu

When loading a sheet of media, set the method for detecting the media.



Setup items	Parameters	Description
SheetSize	Auto	Media measurement sequence ► REAR – RIGHT – LEFT – TOP
	Length	Media measurement sequence ► RIGHT – LEFT – TOP
		Media orientation when loading standard size media. 
	Width	Media measurement sequence ► RIGHT – LEFT – TOP
	Width	Media orientation when loading standard size media. 
	-	After setting, shift to the previous hierarchy menu.

⚠ Notes ⚠

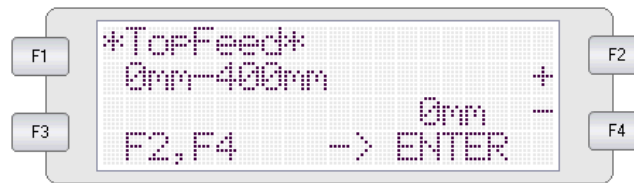
When using sheet media other than recommended media, set to "blank form vertical" or "blank form horizontal".

The following size of sheet media can be set.

- ISO series (A0, A1, A2, A3, A4)
- JIS series (B1, B2, B3, B4)
- ARCH series (A, B, C, D)

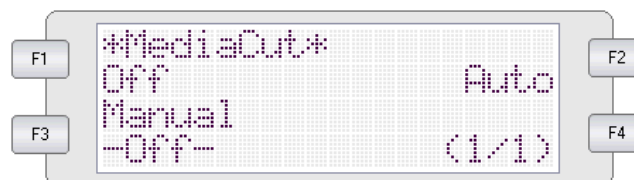
5.4.1.17 Top feed menu

Sets the amount of media to be fed when printing begins. Make this setting when using roll media. This setting may also be used when working with heaters. While the heaters are warming up, the media may curl. To prevent head strikes it is better to perform a topfeed before printing.



Setup items	Parameters	Description
Top feed	0mm - 400mm	To feed media at the start of printing. Set when printing on roll media. <ul style="list-style-type: none"> • [F2] key: to increase the setup value. • [F4] key: to decrease the setup value. • [ENTER] key: to confirm the setup value • [CANCEL] key: to cancel the setup value

5.4.1.18 Media cut menu



Setup items	Parameters	Description
Media cutting	Off	No media feed after printing.
	Auto	When finishing a print job, the media feeds forward to the cut position and is automatically cut.
	Manual	Feed media to the media cut position after printing. Use regular cutting blades available from hardware stores.
	-	When selecting "Auto", proceed to the Shortest Cut Length menu. <ul style="list-style-type: none"> • If "Manual" or "Off" has been selected, the screen changes to the menu of the previous hierarchy.

⚠ Notes ⚠

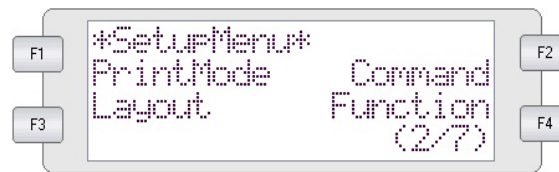
For the situation described below, the media cut settings are always changed to "OFF" regardless the previous settings.

- When "rollfeed" is set for the media detection settings (Media detection menu)

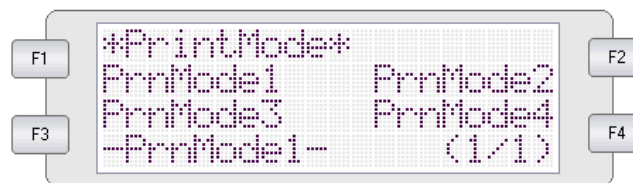
When using the media described below, set the media cut setting to "Manual". If set to "Auto", the following errors may occur :

- Cloth material: The cloth fiber is not completely cut.
- Media with glue: Glue will adhere to the cutting blade and decrease cutting performance.

5.4.2 Setup menu 2/7

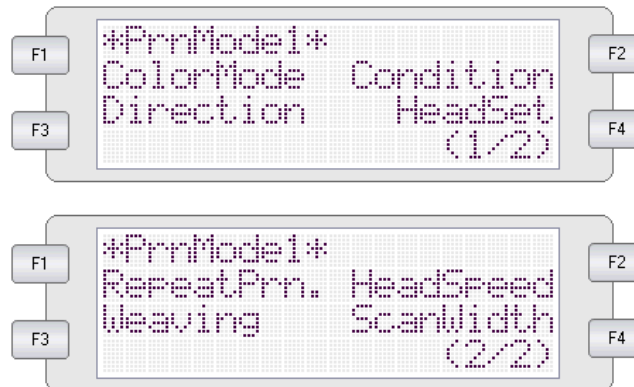


5.4.2.1 Printing mode menu



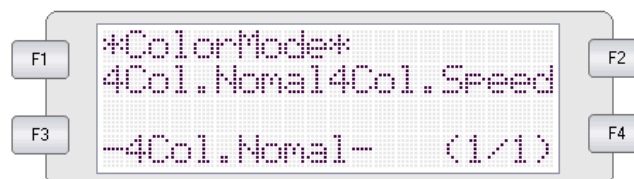
Setup items	Parameters	Description
Print mode setup	Print mode 1	For each setup value of Printing mode, four settings are available. Refer to 'Printing mode setup menu'
	Print mode 2	
	Print mode 3	
	Print mode 4	
	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.2 Printing mode setup menu



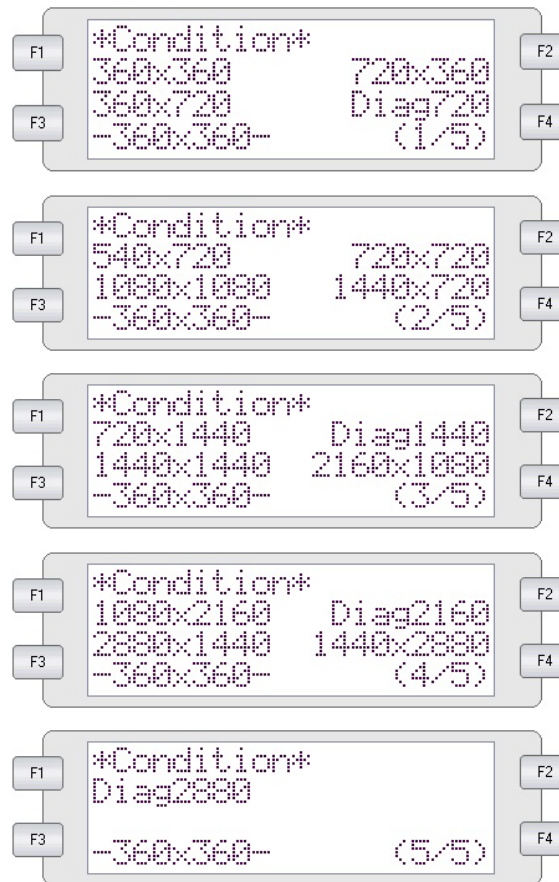
Setup items	Parameters	Description
Printing mode 1-4 (1/2)	Colour mode	To set the number of colours used for printing. Refer to 'Colour mode menu'
	condition	To set printing quality. Refer to 'Printing quality menu'
	Direction	To set print head moving direction for printing. Refer to 'Printing direction menu'
	HeadSet	To set which heads are used for printing.
	Repeat printing	To make settings for the repeat print. Refer to 'Repeat printing menu'
Printing mode 1-4 (2/2)	Head speed	To set the head speed Refer to 'Head speed menu'
	Weaving	To set Intelligent interweaving. Refer to "I ² Intelligent interweaving"
	Scanwidth	To make settings for the scanwidth
Printing mode 1-4	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.3 Colour mode menu



5.4.2.4 condition menu

Select printing quality with consideration to applications of printing data and printing speed.



Setup items	Parameters	Description
Condition (1/5)	<360 × 360dpi>	The display changes to interlace setup items after the print quality items settings have been finished. Refer to "InterLace Setup menu"
	720 × 360dpi	
	360 × 720dpi	
	Diagonal 720dpi	
Condition (2/5)	540 × 720dpi	
	720 × 720dpi	
	1080 × 1080dpi	
	1440 × 720dpi	
Condition (3/5)	720 1440dpi	
	Diagonal 1440	
	1440 × 1440dpi	
	2160 × 1080dpi	
Condition (4/5)	1080x2160dpi	
	Diagonal 2160	
	2880 × 1440dpi	
	1440x 2880dpi	
Condition (5/5)	Diagonal 2880	
Condition (1/4 – 4/4)	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Printing mode setup menu'

5.4.2.5 Printing direction menu

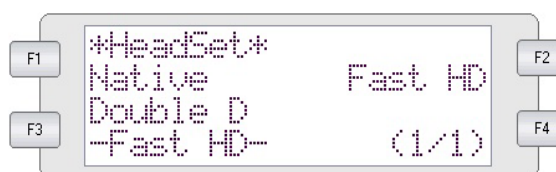
To set print head moving direction for printing.



Setup items	Parameters	Description
Direction	UniDir	Prints in one direction.
	BiDir	Prints bi-directionally.
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.6 Headset

To select which head must print.

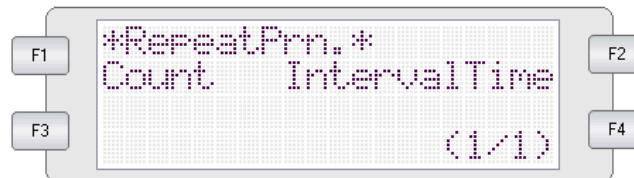


Setup items	Parameters	Description
Headset	Native	Default printer settings for normal printing modes
	1234 Set	Selected print mode utilizes only the first 4 heads
	Double Density	This setting prints 4 colour mode in double density (uses all 8 heads)
	---	[CANCEL] key: to shift to the previous hierarchy menu.

5.4.2.7 Repeat printing menu

⚠ Notes ⚠

This setting is often used when printing onto textiles.
Only use non-stretchable, tight woven textiles.



Setup items	Parameters	Description
Repeat	Count	To set the number of repeats per line of printing. Refer to 'Repeat times menu'
	Interval	To set interval time for the repeat print. Refer to 'Interval time menu'
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.8 Repeat times menu

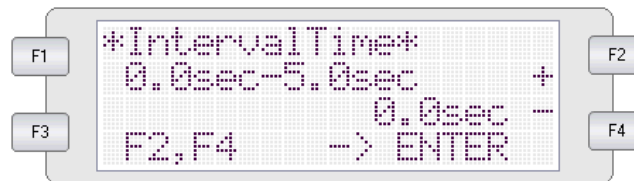
To set the number of repeats per line of printing.



Setup items	Parameters	Description
Times	<Once> to 99 times	Operate the following keys to change repeat times: <ul style="list-style-type: none"> • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: To confirm the setup value, to shift to the previous hierarchy menu. • [CANCEL] key: To cancel setup value, to shift to the previous hierarchy menu. Refer to 'Repeat printing menu'

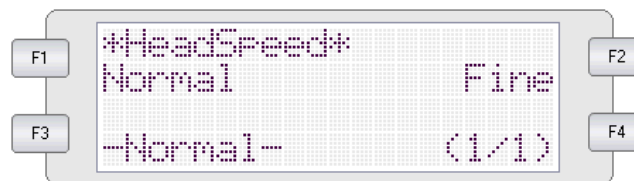
5.4.2.9 Interval time menu

To set interval time for the repeat print.



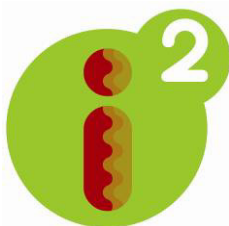
Setup items	Parameters	Description
Interval	<0.0 sec.> to 0.1 to 5.0 sec.	Operate the following keys to change interval time. <ul style="list-style-type: none"> • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'To repeat the printing menu'

5.4.2.10 Head Speed Menu



Setup items	Parameters	Description
HeadSpeed	Normal	Print at normal speed
	Fine	Print at half speed. (Only available in 720x720)
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.11 Weaving menu – I²



Without weaving ON, an image is completed (formed) by printing a series of complementary rectangular shaped stripes (bands, swaths, passes). Inherent to classic inkjet printing is that ink drying effects, stepping mismatch, miss firing nozzles show up in the printed image via ink bleeding and various types of banding. By switching ON one of the weave patterns you will give the traditional rectangular print swaths a wave-shaped look that will save you time and boost your output quality. Difficult images will print smoother, banding will be suppressed (neutralized) and you will have to spend less time fine-tuning your printer to create great looking output.

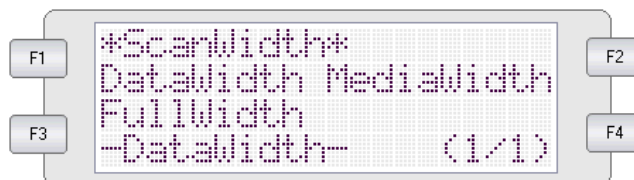
Moreover, when using wave-tuned profiles, you will be able to boost your printer's colour gamut as the i² (intelligent interweaving) technology allows depositing more ink, helping you to achieve higher colour densities.



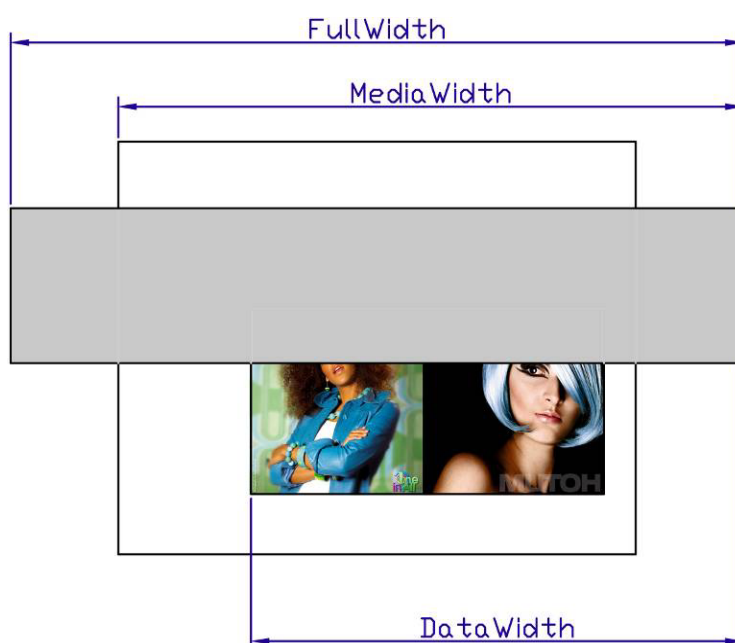
Setup items	Parameters	Description
Weaving (1/2)	Sign / Quality	For Sign printing OR Quality Printing (*)
	Picture / Speed	For Picture printing OR Speed Printing (*)
Weaving (2/2)	Stitch	In previous firmware called "Stitch A"
	OFF	Switches off any of these settings (not advised to run production)

5.4.2.12 Scanwidth menu

It is possible to specify the carriage movement along the media – printed area. This will have a direct effect on the drying time!! Please find more details below.



Setup items	Parameters	Description	Drying time
ScanWidth	DataWidth	Carriage moves only over the printing area	Short
	MediaWidth	Carriage moves to the end of the media	Depending on MediaWidth
	FullWidth	Carriage moves over the full width of the printer	Long



⚠ Notes ⚠

The setup list indicates this setting.
This setting works with HDD printing.
This setting has no effect on internal test prints.

5.4.2.13 Command menu

To perform various settings for printer commands.

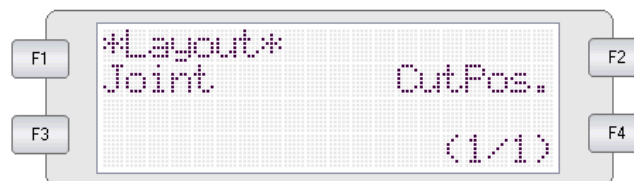


Setup items	Parameters	Description
Command setup	Step	Not applicable
	Resolution	Not applicable
	OnlineTimer	Makes settings for the time between the end of receiving printing data from a computer and recognizing the end of printing data.
	-	[CANCEL] key: to shift to the previous hierarchy menu.

5.4.2.14 Layout setup menu

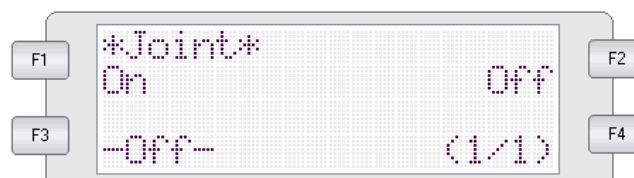
⚠ Notes ⚠

The layout function automatically determines the size of printing data sent from the computer, and then determines the amount of roll media required without wasting media.
If sheet media is loaded, the layout function is disabled.



Setup items	Parameters	Description
Layout	Joint	Makes settings for stitching print. Refer to 'Joint printing menu'
	CutPos	To set the media cutting position after printing has been completed. Refer to 'Cutting position Menu'
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

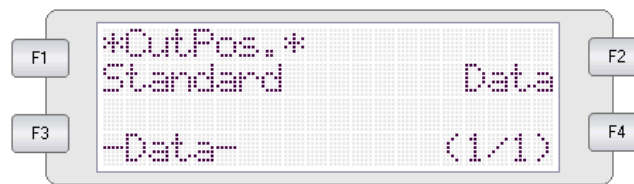
5.4.2.15 Joint printing menu



Setup items	Parameters	Description
Joint	<OFF>	Does not perform stitching print.
	ON	Performs stitching print
	-	- Shifts to the previous hierarchy menu. Refer to 'Layout setup menu'

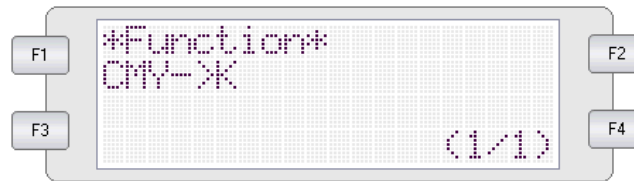
5.4.2.16 Cutting position Menu

To set the media cutting position after printing has been finished.



Setup items	Parameters	Description
Cutting position	Standard	To cut the media to fit the media width, so that it meets the regulated size.
	<Data>	To cut the media according to the size of the printing data.
	-	- Shifts to the previous hierarchy menu. Refer to 'Layout setup menu'

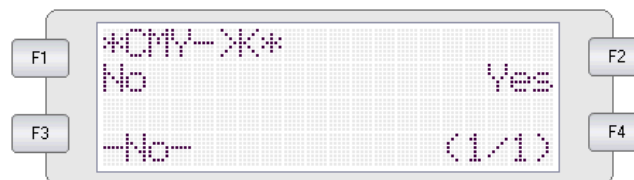
5.4.2.17 Function setup menu



Setup items	Parameters	Description
Function setup	CMY→K	Makes settings for printing method to present black. Refer to 'CMY→K menu'
	-	• [CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.2.18 CMY → K menu

To set how to draw black.



Setup items	Parameters	Description
CMY→K	<No>	• If MH-GL, GL2 are set on the Command Settings menu, be sure to use CMY (mixed colours) ink. • If RTL-PASS is set, use both CMY (mixed colours) ink and K (black) ink.
	Yes	Always use K (black) ink.
	-	To shift to the previous hierarchy menu. Refer to 'Function setup menu'

5.4.3 Setup menu 3/7



5.4.3.1 Roll Media setup menu

To perform various settings for roll media.



Setup items	Parameters	Description
Roll media setup	Disable	Set this when roll media setup is not used.
	Roll media 1	For each setup value of roll media, 3 settings are available. Refer to 'Roll media length menu'
	Roll media 2	
	Roll media 3	
	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

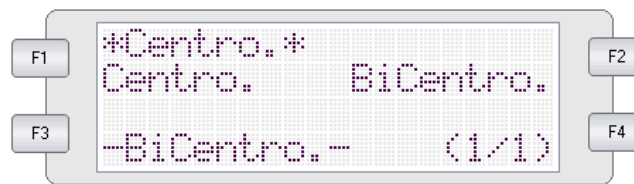
5.4.3.2 Roll media length menu



Setup items	Parameters	Description
Roll media 1-4	1 m to <30 m>to 999 m	Operate the following keys to change the roll media length: • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'Roll Media setup menu'

5.4.3.3 Centronics menu

To set communication mode to Centronics interface.

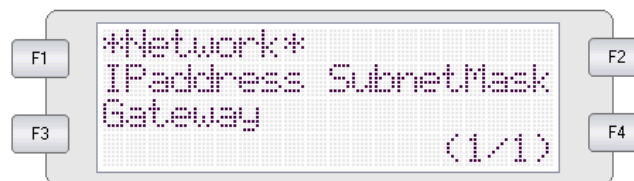


Setup items	Parameters	Description
Centronics	Centronics	To set communication mode to Centronics mode.
	<Bi Centro>	To set communication mode to Bi-Centronics mode.
	-	To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.3.4 Network setting menu

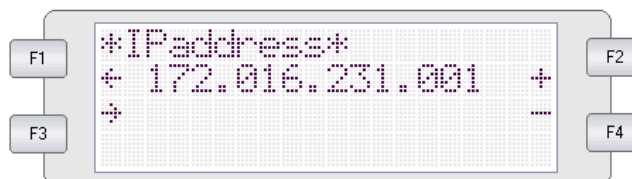
⚠ Notes ⚠

The network settings menu is available if a network interface board is installed.
Be sure to consult the network administrator before making the settings in the Network Settings menu.



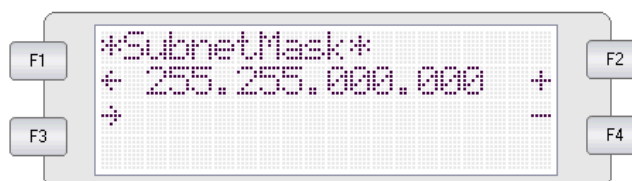
Setup items	Parameters	Description
Network (1/2)	IP address	To set the IP address of the product. Refer to 'IP address menu'
	Subnet mask	To set the subnet mask of the product. Refer to 'Subnet mask menu'
	Gateway	To set the IP address of the connected gateway. Refer to 'Gateway menu'
Network (1/2)	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.3.5 IP address menu



Setup items	Parameters	Description
IP address	<000.000.000.000> - 223.255.255.254	Use the following keys to change the IP address. • [F1] key: Moves one digit to the left on the setting value to be changed. • [F2] key: Increases the setting value. • [F3] key: Moves to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

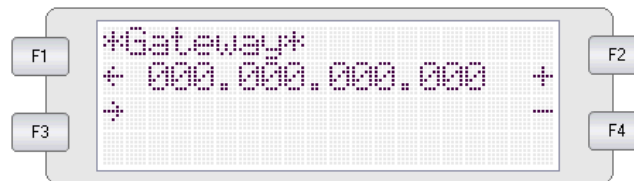
5.4.3.6 Subnet mask menu



Setup items	Parameters	Description
Subnet mask	000.000.000.000 - <255.255.255.000> - 255.255.255.255	Use the following keys to change the Subnet Mask. • [F1] key: Moves one digit to the left on the setting value to be changed. • [F2] key: Increases the setting value. • [F3] key: Moves to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

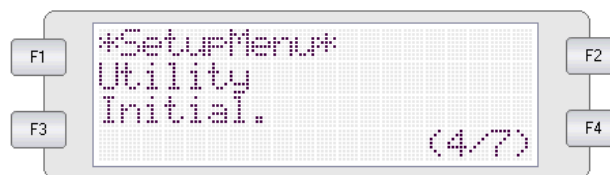
5.4.3.7 Gateway menu

The product sets the IP address of the connected gateway.



Setup items	Parameters	Description
Gateway	<000.000.000.000> - 223.255.255.254	Use the following keys to change the IP address. • [F1] key: Moves one digit to the left on the setting value. • [F2] key: Increases the setting value. • [F3] key: Moves one digit to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

5.4.4 Setup menu 4/7

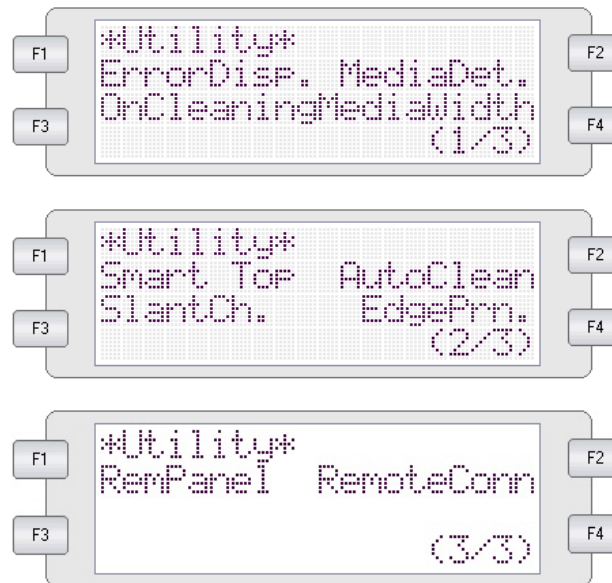


⚠ Notes ⚠

The file management menu is available if a hard disk is installed.

5.4.4.1 Utility menu

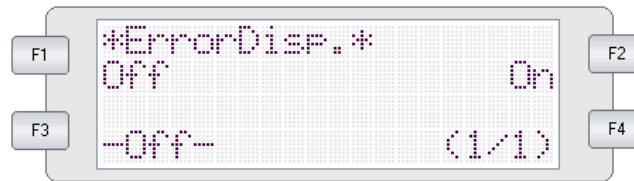
To perform various settings for application functions of products.



Setup items	Parameters	Description
Utility (1/3)	ErrorDisplay	To set display method to the operation panel when minor error occurred. Refer to 'ErrorDisplay menu'
	Media detection	To detect the media width and media edge when initializing the media. Refer to 'Media detection menu'
	ON cleaning	To perform automatic cleaning when the printer is ON Refer to 'Power ON cleaning menu'
	Media width	If media detection is not performed for initial media, to set the width of the media in the tray. Refer to 'Media width menu'
Utility (2/3)	SmartTop	The ideal temperature of the media is near to the Preheater. This area of the paper is fed before a print starts to obtain perfect quality
	Autoclean	Performs cleaning cycles while printer is idle at the set temperature
	SlantCh	Whether to perform a slantcheck or not.
	EdgePrn.	With this feature it is possible to print at maximum mediawidth (1643 mm for a 65" Viper Extreme and 2240 mm for a 90" Viper Extreme) without any margins left and right.
Utility (3/3)	Rem. Panel	Accept or decline remote control (for future use only)
	Remote connection	Reserved for future use only
	-	• [CANCEL] key: To shift to the previous hierarchy menu.

5.4.4.2 ErrorDisplay menu

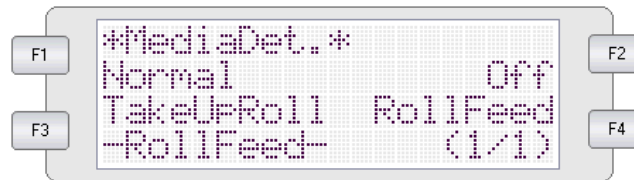
To set display method to the operation panel when minor error occurred.



Setup items	Parameters	Description
ErrorDisplay	<OFF>	No ErrorDisplay.
	ON	To perform ErrorDisplay.
	-	To shift to the previous hierarchy menu. Refer to 'Utility menu'

5.4.4.3 Media detection menu

When media has been initialized, to perform detection of width and edge of the media.



Setup items	Parameters	Description
media detect	<Normal>	To perform media detection automatically.
	OFF	No media detection.
	Take-up mechanism	Make this setting when using the optional take-up system.
	RollFeed	Make this setting when using the Unwinder / winder 100. (Standard with your Digital Transfer Printer.)
	-	• [CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Utility menu'

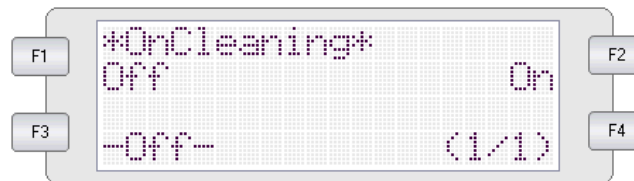
⚠ Notes ⚠

WHEN SETTING "TAKE-UP MECHANISM", THE FOLLOWING LIMITS ARE APPLIED TO THE OPERATION OF THE PRODUCT.

- FOR INITIAL MEDIA, ONLY THE MEDIA WIDTH IS DETECTED.
- UNDER NORMAL CONDITIONS, MEDIA CANNOT BE FED BACKWARD.
- THE MEDIA CANNOT BE MOVED FORWARD OR BACKWARD FROM THE ORIGIN SETTING MENU.
- THE SETTINGS IN THE MEDIA CUT MENU ARE DISABLED, AND THE SETTINGS ARE CHANGED TO "OFF". (REFER TO 'MEDIA CUT MENU')

5.4.4.4 Power ON cleaning menu

When cleaning must be performed automatically with the power ON.



Setup items	Parameters	Description
Power ON cleaning	<OFF>	Does not perform Power ON cleaning.
	ON	Performs Power ON cleaning.
	-	To shift to the previous hierarchy menu. Refer to 'Utility menu'

5.4.4.5 Media width menu

With this menu, you can set the width of the media if you did not perform any media detection during the media initialization.

It can be set in the following ranges:

- 65" model: 210mm-1651mm
- 90" model: 210mm-2240mm

⚠ Notes ⚠

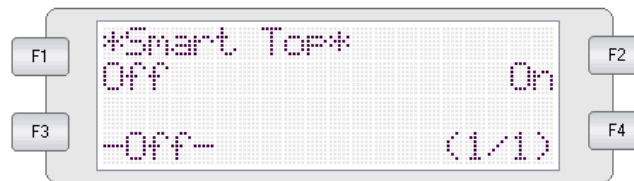
On the media width menu,

- If a value larger than the width of the media has been set, media or the product may be contaminated by the ink during printing.
- If a value smaller than the width of the set media has been set, media may not be cut correctly.



Setup items	Parameters	Description
media width	<ul style="list-style-type: none"> • 65" model: 210mm - <841mm> - 1651mm 	Operate the following keys to change the media width <ul style="list-style-type: none"> • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shift to the previous hierarchy menu. Refer to 'Utility menu'
	<ul style="list-style-type: none"> • 90" model: 210mm - <841mm> - 2240mm 	

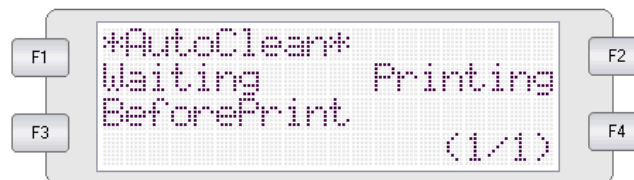
5.4.4.6 Smart top feed



The printer receives data and starts the heating cycle.
The heaters have reached their printing temperature.
If using the "A" heater, the printer feeds media and executes an extra top feed.
The extra top feed can be set between 50 mm and 150 mm.

5.4.4.7 Auto cleaning

Performs an auto cleaning at a set interval, during waiting, printing or before print.



Setup Items	Parameters	Description
Automatic Cleaning	Waiting	Printer will automatically perform a cleaning, at a set interval, while waiting (idle default: OFF)
	Printing	Printer will automatically perform a cleaning, at a set interval, while printing
	Before print	Printer will automatically perform a cleaning before printing.

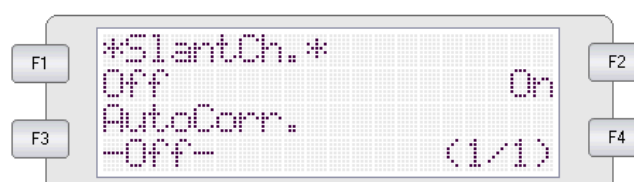


F1: choose the interval: OFF, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours, 6 hours, 9 hours, 12 hours, 18 hours or 24 hours.

F2: choose the cleaning type; Normal, Little or Powerful.

5.4.4.8 Slant Check

It is possible to switch the slant check ON or OFF (default: OFF). It is also possible to set it to autocorrect. When performing a slant check with an auto correction, the next print files are repositioned against the new media position. This will improve the comfort level for unattended printing.



5.4.4.9 Edge-to-edge printing

⚠ Notes ⚠

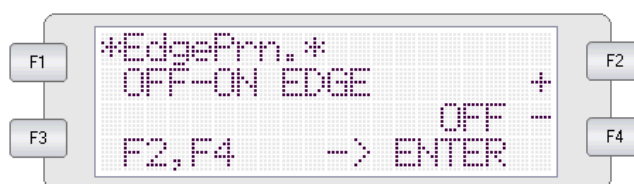
- When using this setting, it is important to load your media straight.

⚠ Notes ⚠

- Use this setting only when working with heavy papers. This because no media retainers can be used.

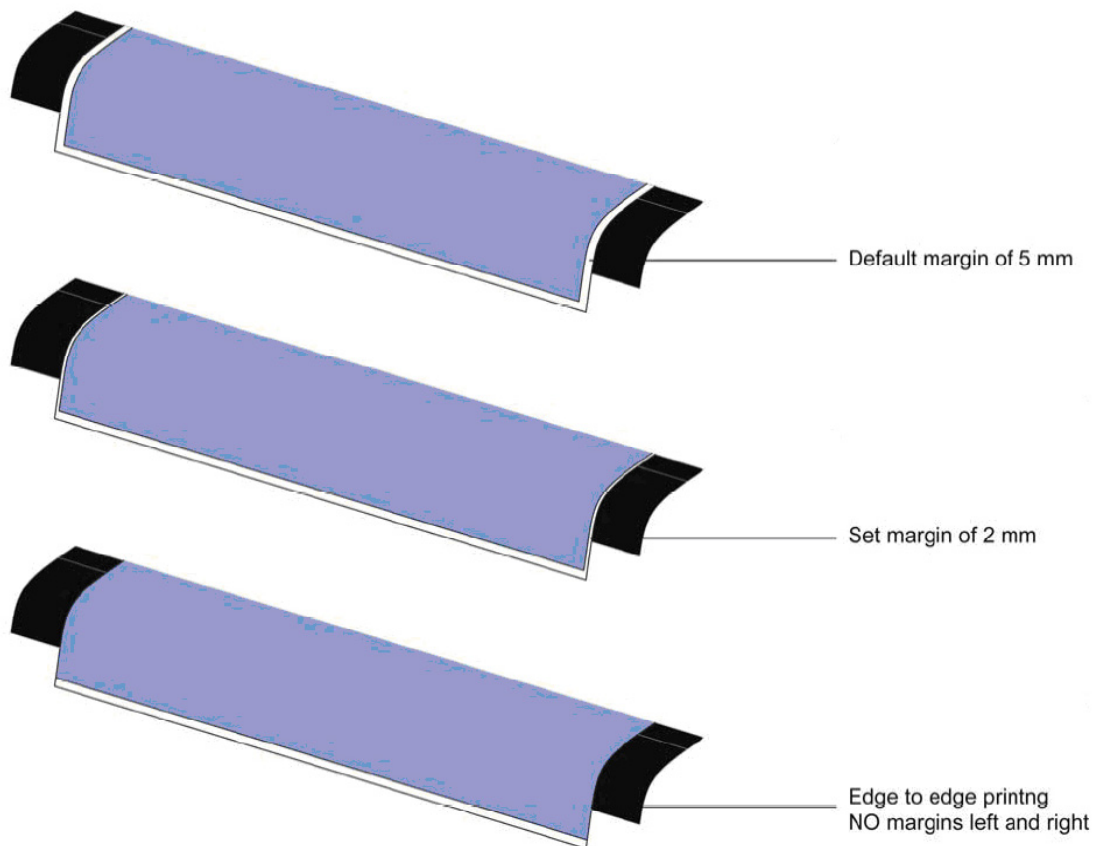
With this feature it is possible to print at maximum mediawidth (1651 mm for a 65" Viper Extreme and 2240 mm for a 90" Viper Extreme) without any margins left and right.

Be sure that the media has been loaded symmetrically to the outer grid rolls.



OFF
-xmm
ON EDGE

the default margins of 5 mm left and right are used.
set the left and right margins between 1 and 5 mm
there are no margins allowed --> edge to edge printing.

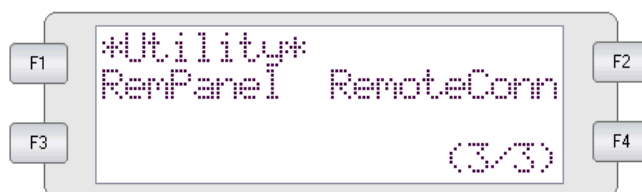


"edgePrn not possible" will be displayed when trying to print before the 0 point or beyond the max print width

The setup list also indicates the value of the edge to edge parameter.

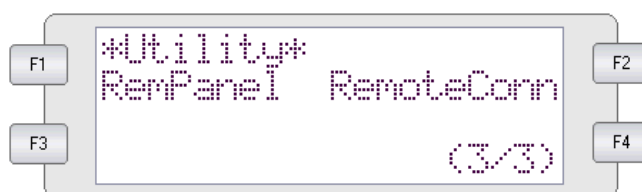
5.4.4.10 Remote panel

With this function it is possible to enable or disable remote control. This feature is for future use only! Leave this setting to its default value, OFF!



5.4.4.11 Remote connection

With this function it is possible to connect to a remote control. This feature is for future use only!



5.4.4.12 File management setup menu

Makes various settings for the processing method of the printing data sent from computer to the installed hard disk in the printer.

⚠ Notes ⚠

The items on the File Management menu are displayed if a hard disk has been installed.



Setup items	Parameters	Description
File management (1/2)	Write mode	To set writing method of printing data to the hard disk.
	Re-print	Set this when you want to print the printing data saved on the hard disk.
	Delete	Set this when deleting the printing data saved on the hard disk.
	Re-name	To change file name of the printing data saved on the hard disk.
File management (2/2)	Format	To perform formatting of hard disk.
File management (1/2-2/2)	-	[CANCEL] key: To shift to the previous hierarchy menu.

5.4.4.13 Write mode menu

To set writing method of printing data to the hard disk and printing method.

⚠ Notes ⚠

Write mode menu has been displayed if a hard disk has been installed on the product.
When writing printing data to the hard disk, be sure to load media.
The printing data is sized to fit the media.
If there is no media in the printer, the printing data cannot be written.



Setup items	Parameters	Description
Writing	<Off>	No writing to the hard disk. Performs printing immediately.
	Write.Prn	Prints while writing the data to the hard disk.
	Write>Prn	Prints after writing the data to the hard disk.
	Writeonly	Writes the data to the hard disk without printing.
	-	[CANCEL] key: To shift to the previous hierarchy menu.

⚠ Notes ⚠

Printing method can be set for printing data saved in the hard disk by Re-print menu.

5.4.4.14 Re-print menu

Set following items when you want to print printing data saved on the hard disk.

- File name
- Number of prints

Notes

The re-print menu is available if a hard disk is installed.

When Reprinting the printing data:

- Use media of the same size as the printing data.
The size of the printing data will be the same as the initial paper size, even if paper of a different size has been set, the printing will start from the same printing start position.
- Use an ink configuration with the same colour and type of ink that will be used during the printing data write.



Setup items	Parameters	Description
Re-print	File name	Operate the following keys to select the print file [F1] key: to select file name with back feed way. [F3] key: to select file name with forward feed way.
	Number: 0 to 99	Operate the following keys to change the number of prints. [F2] key: Increases the setup value. [F4] key: Decreases the setup value.
	-	[ENTER] key: To confirm setup value. Product starts printing. After printing, to shift to normal condition. [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu.

5.4.4.15 File delete menu

Set this when you delete printing data saved on the hard disk.

⚠ Notes ⚠

The file delete menu is available if a hard disk is installed.
If you delete a file by the File delete menu, you cannot retrieve that file again.
If you want to use the deleted file again, send the printing data to the hard disk again.



Setup items	Parameters	Description
Delete	File name	Operate the following keys to select the file you want to delete. [F1] key: To select file name with back feed way. [F3] key: To select file name with forward feed way. [ENTER] key: Deletes selected file [CANCEL] key: To cancel

5.4.4.16 Re-name menu

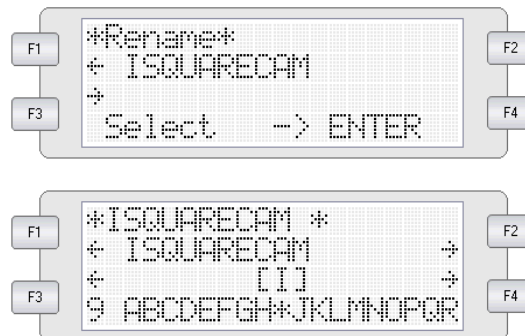
To change file name of printing data saved on the hard disk.

⚠ Notes ⚠

The re-name menu is available if a hard disk is installed.

The file name of printing data sent from the computer is always set to "TEMPFILE000".

To save transmitted image data, change the file name to a name of your choice in the Rename folder before transmitting the next printing data.



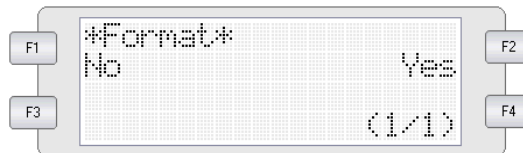
Setup items	Parameters	Description
To-be-changed file name	Characters you want to change	Operate the following keys to select the characters you want to change. [F1] key: To select characters you want to change with back feed way. [F3] key: To select characters you want to change with forward feed way.
	Characters you can use are : A-Z or 0-9	Operate the following keys to select the to-be-changed characters. [F2] key: Selects to-be-changed characters with back feed way. [F4] key: Selects to-be-changed characters with forward feed way.
	-	[ENTER] key: Confirms setup value, shifts to the previous hierarchy menu. [CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu.

5.4.4.17 Format menu

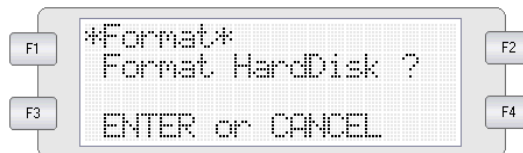
To format the hard disk.

⚠ Notes ⚠

The Format menu is available if a hard disk is installed.
If formatting of the hard disk has been performed, all data saved on the hard disk will be deleted.



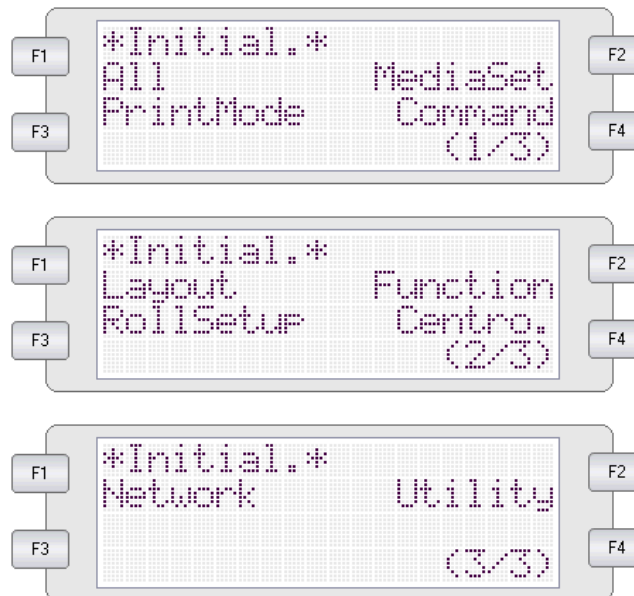
Setup items	Parameters	Description
Format	No	Format has not been performed.
	Yes	To perform formatting.
	-	[CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu.



Setup items	Parameters	Description
Format	Format will be performed. OK?	[ENTER] key: Product starts formatting. The following messages are displayed on the operation panel.
		<div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> * Format * Format HardDisk </div>
		After formatting, to shift to the previous hierarchy menu. [CANCEL] key Formatting will be aborted. To shift to the previous hierarchy menu.

5.4.4.18 Initialize setup menu

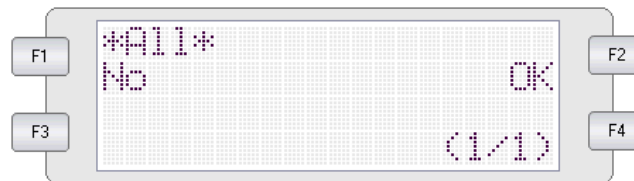
Returns parameters to the factory settings.



Setup items	Parameters	Description
Initialize (1/3)	All	Returns all parameters to the factory setting. Refer to 'All Initialize menu'
	MediaSet	Returns parameters in the media setup menu to the factory setting. Refer to 'Media setup Initialize menu'
	PrintMode	Returns parameters in the print mode menu to the factory setting. Refer to 'Printing mode initialize menu'
	Command	Returns parameters in the command setup menu to the factory setting. Refer to 'Command setup Initialize menu'
Initialize (2/3)	Layout	Returns parameters in the layout setup menu to the factory setting. Refer to 'Layout Setup Initialize menu'
	Func.	Returns parameters in the function setup menu to the factory setting. Refer to 'Function setup Initialize menu'
	Roll media	Returns parameters in the roll media setup menu to the factory setting. Refer to 'Roll media setup Initialize menu'
	Interface	Returns parameters in the Centronics setup menu to the factory setting. Refer to 'Centronics Initialize menu'
Initialize (3/3)	Network	Returns parameters in the network setup menu to the factory setting. Refer to 'Network Initialize menu'
	Utility	Returns parameters in the utility setup menu to the factory setting. Refer to 'Utility Initialize menu'
	File management	The file management setup menu values are reset to factory default settings. (Only available if a hard disk is installed)
Initialize (1/3-3/3)	-	• [CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.4.19 All Initialize menu

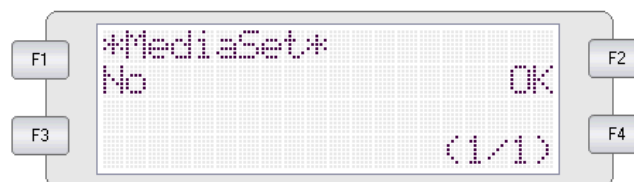
All setup values are set to the factory default settings.



Setup items	Parameters	Description
All Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

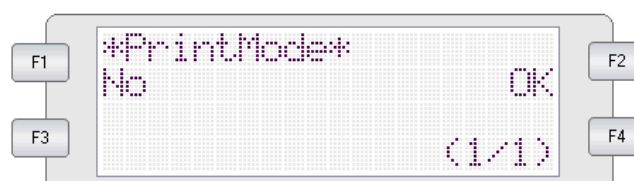
5.4.4.20 Media setup Initialize menu

Setup values of Media setup menu are set to the factory default settings.



Setup items	Parameters	Description
Media setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

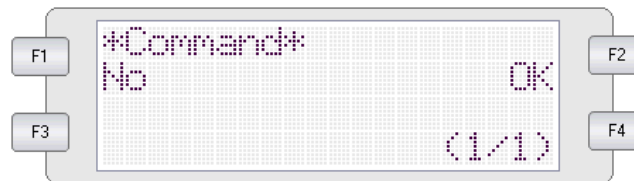
5.4.4.21 Printmode



Setup items	Parameters	Description
Printing mode initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.22 Command setup Initialize menu

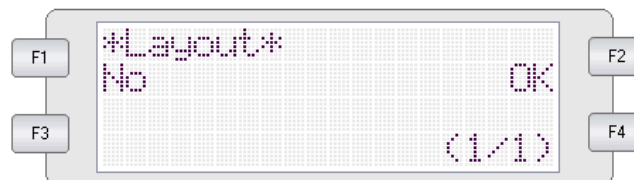
Setup values of CommandSetup menu are set to the factory default settings.



Setup items	Parameters	Description
Command setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.23 Layout Setup Initialize menu

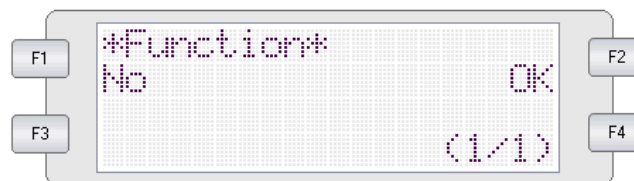
Setup values of Layout Setup menu are set to the factory default settings.



Setup items	Parameters	Description
Layout Setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.24 Function setup Initialize menu

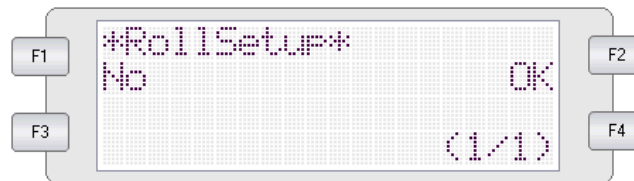
Setup values of Function setup menu are set to the factory default settings.



Setup items	Parameters	Description
Function setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.25 Roll media setup Initialize menu

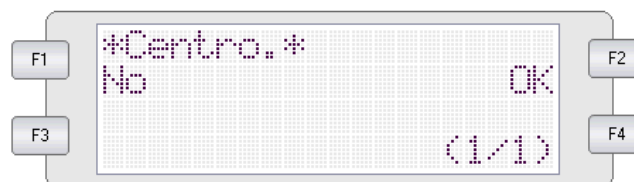
Setup values of Roll Media setup menu are set to the factory default settings.



Setup items	Parameters	Description
Roll media setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.26 Centronics Initialize menu

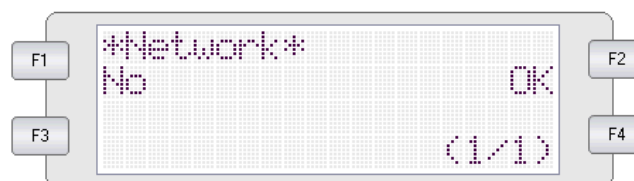
Setup values of Centronics menu are set to the factory default settings.



Setup items	Parameters	Description
Centronics Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.4.27 Network Initialize menu

Setup values of Network menu are set to the factory default settings.



Setup items	Parameters	Description
Network initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

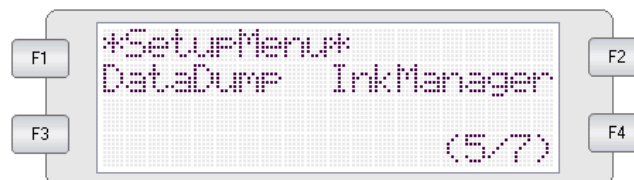
5.4.4.28 Utility Initialize menu

Setup values of Utility menu are set to the factory default settings.



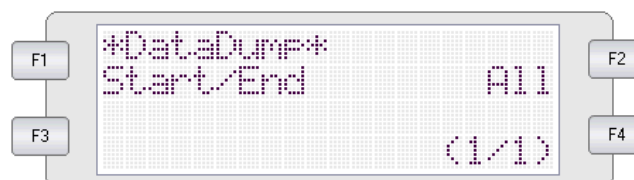
Setup items	Parameters	Description
Utility initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.5 Setup menu 5/7



5.4.5.1 Data dump menu

To perform dump printing for online function check.



Setup items	Parameters	Description
Data Dump	Start/End	<div style="border: 2px solid black; padding: 5px;"> ⚠Notes ⚠ Service persons use dump printing to check the functions of the printer. Do not use this function for normal printing </div>
	All	
	-	•[CANCEL] key: • To exit Dump Mode. • To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.5.2 Ink Manager menu

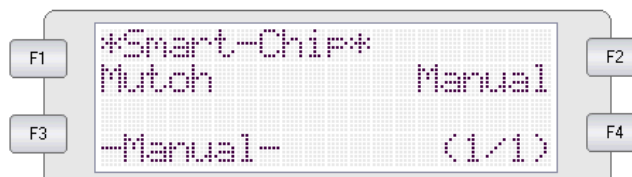
To choose the smart-chip mode or colour mode and to perform a "Wash" or "Ink load".



Setup items	Parameters	Description
Ink Manager	Smart Chip	To select the smart-chip mode manual or Mutoh. Refer to "Smart-chip" menu.
	(1/2) Wash	To wash the print heads. Refer to 'Wash' menu.
	Ink Load	To load ink. Refer to 'Ink Load' menu.
	(2/2) InkSupply	To choose between the cassettes or the BIS system
	-	[CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup' menu.

5.4.5.3 Smart-chip menu

To choose whether you want to work with or without smart-chip.



Setup items	Parameters	Description
Smart chip	Mutoh	Smart chips are enabled. The printer recognizes the ink cassettes with smart chip and keeps track of the ink consumption.
	Manual	Smart chip are disabled. Refer to 'Manual Smart Chip' menu.
	-	After setting shift to the previous hierarchy menu.

5.4.5.4 Manual smart chip menu

Please refer to the next page for an overview of the colour modes.

In this mode the smart-chips are disabled. The printer does NOT recognize the ink, and does NOT keep track of the ink consumption. When operating in this mode, the colour configuration needs to be set.



Setup items	Parameters	Description
Smart chip	Dye 4	2 x 4 colours Dye sub ink 2 x CMYK.
	Pig 4	2 x 4 colours Pigmented sub ink 2 x CMYK.
	Dye/Pig 4	Mixed setup Dye sub ink and Pigmented ink CMYK + CMYK.
	Dye6cm	1 x 6 colours Dye sub ink CMYKLcLm.
	Pig 6 cm	1 x 6 colours Pigmented sub ink CMYKLcLm.
	Pig 6 OG	1 x 6 colours Pigmented sub ink CMYK and 2 spot colours.
	Dye 8	1 x 8 colours Dye sub ink CMYKLcLm and 2 spot colours.
	Pig 8	1 x 8 colours Pigmented ink CMYKLcLm and 2 spot colours.
	Dye 1C1H extreme	Support for 1 colour 1 head 4 colour print modes. Be aware, the ink cassettes must be placed as follows: KYCMMCYK
	Pig 1C1H extreme	Support for 1 colour 1 head 4 colour print modes. Be aware, the ink cassettes must be placed as follows: KYCMMCYK
	-	After setting shift to the previous hierarchy menu. Refer to 'smart-chip menu.

⚠ Notes ⚠

Dye sublimation ink must always be identified as a Dye parameter.

Number of colours	Ink type	Ink cassette slot							
		1	2	3	4	5	6	7	9
2x4	Dye sub ink	BK	Cy	Ma	Ye	Bk	Cy	Ma	Ye
2x4 mixed	Mixed setup. Dye sub ink & pigment ink.	Bk (pigment)	Cy (Pigment)	Bk (Dye)	Cy (Dye)	Ma (Dye)	Ye (Dye)	Ma (Pigment)	Ye (Pigment)
1x6 LC/Lm	Dye sub ink	Bk	Cy	Cleaning	Cleaning	Ye	Ma	Lc	Lm
1x6 spotcolour 1 spot colour 2	Dye sub ink	Bk	Cy	Green Spot 1	Orange Spot 2	Ye	Ma	Cleaning	Cleaning
1x8 Lc/Lm Spotcolour 1 Spotcolour 2	Dye sub ink	Bk	Cy	Green Spot 1	Orange Spot 2	Ye	Ma	Lc	Lm
1C1H Extreme	Dye sub ink	Bk	Ye	Cy	Ma	Ma	Cy	Ye	Bk

5.4.5.5 Wash menu

To clean the ink lines with cleaning fluid.

⚠ Notes ⚠

Always use the ink supplier's recommended cleaning fluid.



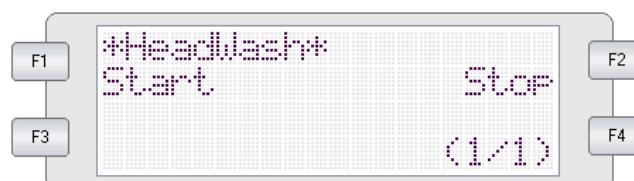
Setup items	Parameters	Description
Wash	Pump 1 – 2	Wash cycle for ink slots 1-4-5-8. Refer to "Wash pump 1 – 2" menu.
	Pump 3 – 4	Wash cycle for ink slots 2-3-6-7. Refer to "Wash pump 3 – 4" menu.
	ALL	Wash cycle for all ink slots. Refer to "Wash all" menu.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

5.4.5.6 Wash Pump 1 – 2 menu

To clean the ink lines connected to ink slots 1-4-5-8 for pump 1-2.

⚠ Notes ⚠

You can stop this cleaning cycle.
Stop when the waste lines are free from ink and are discharging a clear fluid.



Setup items	Parameters	Description
Wash	start	Starts the wash cycle for the selected pumps.
	stop	Stops the wash cycle for the selected pumps. If this is not chosen, the wash cycle takes 7 minutes.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

⚠ Notes ⚠

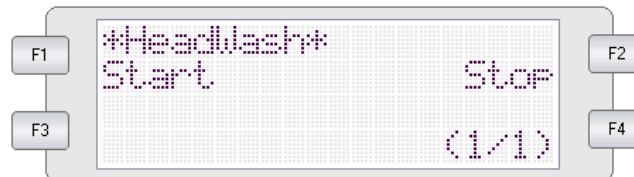
During washing the operation panel returns to the 'ink manager' menu. To stop washing, go back to the start - stop / wash menu.

5.4.5.7 Wash Pump 3 – 4 menu

To clean the ink lines connected to ink slots 2-3-6-7 for pump 3-4.

⚠ Notes ⚠

You can stop this cleaning cycle.
Stop when the waste lines are free from ink and are discharging a clear fluid.



Setup items	Parameters	Description
Wash	start	Starts the wash cycle for the selected pumps.
	stop	Stops the wash cycle for the selected pumps. If this is not chosen, the wash cycle takes 7 minutes.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

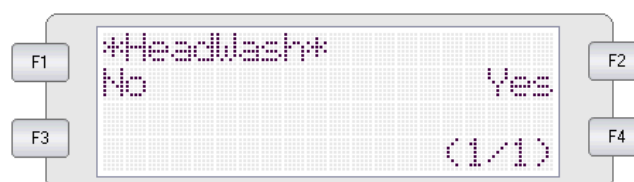
⚠ Notes ⚠

During washing the operation panel returns to the 'ink manager' menu. To stop washing, go back to the start - stop / wash menu.

5.4.5.8 Wash All menu

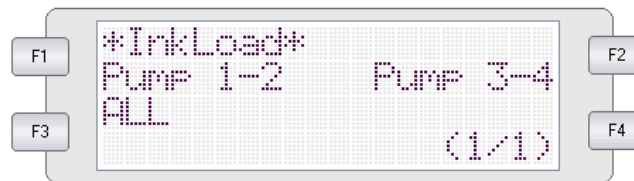
⚠ Notes ⚠

You cannot stop this cleaning cycle.
It takes 11 minutes and uses about 85 ml cleaning fluid per ink slot.



Setup items	Parameters	Description
Wash	Yes	Starts the wash cycle.
	No	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

5.4.5.9 Ink Load menu



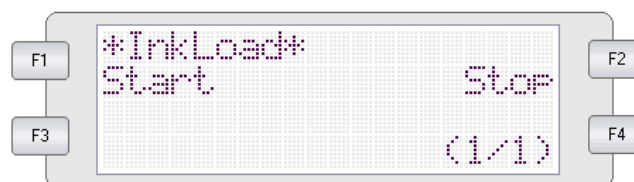
Setup items	Parameters	Description
InkLoad	Pump 1 – 2	Load ink for ink slots 1-4-5-8. Refer to "Load pump 1 – 2" menu.
	Pump 3 – 4	Load ink for ink slots 2-3-6-7. Refer to "Load pump 3 – 4" menu.
	ALL	Load ink for all ink slots. Refer to "Load all" menu.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

5.4.5.10 Load Pump 1 – 2 menu

To fill the ink lines connected to ink slots 1-4-5-8 for pump 1-2.

⚠ Notes ⚠

You can stop this ink load cycle.
Stop when the waste lines show ink discharging from the printer.



Setup items	Parameters	Description
InkLoad	start	Starts the inkload cycle for the selected pumps.
	stop	Stops the inkload cycle for the selected pumps. If this is not chosen, the inkload cycle takes 7 minutes.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

⚠ Notes ⚠

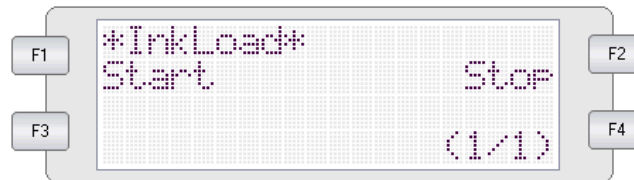
During ink loading the operation panel returns to the 'ink manager' menu. To stop ink loading, go back to the start - stop / Ink Load menu.

5.4.5.11 Load Pump 3 – 4 menu

To fill the ink lines connected to ink slots 2-3-6-7 for pump 3-4.

⚠ Notes ⚠

You can stop this ink load cycle.
Stop when the waste lines show ink discharging from the printer.



Setup items	Parameters	Description
InkLoad	start	Starts the ink load cycle for the selected pumps.
	stop	Stops the ink load cycle for the selected pumps. If this is not chosen, the ink load cycle takes 7 minutes.
	-	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

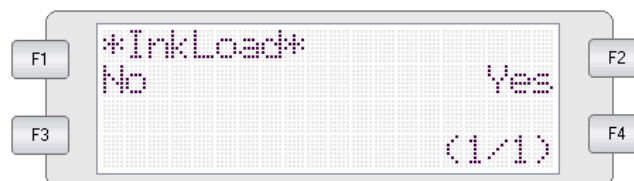
⚠ Notes ⚠

During ink loading the operation panel returns to the 'ink manager' menu. To stop ink loading, go back to the start - stop / Ink Load menu.

5.4.5.12 Load All menu

⚠ Notes ⚠

You cannot stop the ink load cycle.
It takes 11 minutes and uses about 85 ml ink per ink slot.



Setup items	Parameters	Description
InkLoad	Yes	Starts the ink load cycle.
	No	After setting shift to the previous hierarchy menu. Refer to 'Ink manager' menu

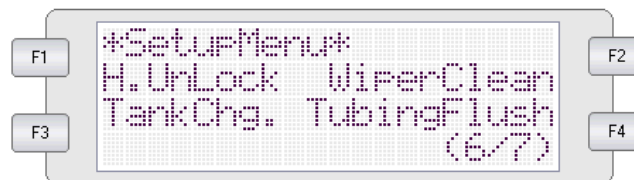
5.4.5.13 InkSupply menu

Use this setting to activate your Mutoh Bulk Ink System or leave the printer in cassette mode.

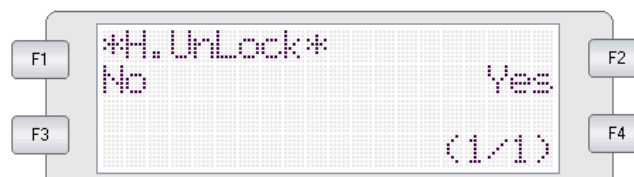


Setup items	Parameters	Description
Ink Supply	ON	Make use of a Mutoh Bulk Ink System
	OFF	Only use cassettes
	---	[CANCEL] key: shifts to the previous hierarchy menu.

5.4.6 Setup menu 6/7



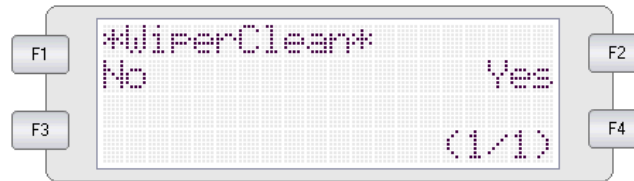
5.4.6.1 H.Unlock menu



Setup items	Parameters	Description
H.Unlock	No	Do not unlock the head
	Yes	To unlock the head
	-	• [CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.6.2 Wiper clean menu

Use this menu when the wipers need to be cleaned. The head will unlock and moves to the left maintenance station. The wiper arm assembly will come out.

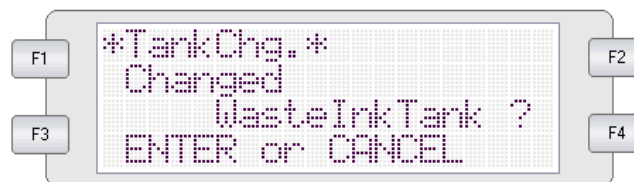


Setup items	Parameters	Description
Wiper clean	No	Do not perform a wiper clean
	Yes	Perform a wiper clean
	-	• [CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.6.3 Tank change menu

⚠ Notes ⚠

Refer to "Replacing the waste liquid tank" for details regarding the procedure for changing the waste fluid tank.



Setup items	Parameters	Description
Tank change	Cancel	Do not change the tank. To shift to the previous hierarchy menu. Refer to 'Setup menu'
	Enter	When tank has been changed.
	-	• [CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.6.4 Tubing Flush menu

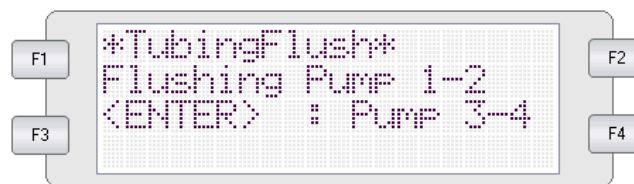
To remove rest fluids out of the capping station and waste tubes, use the menu "Tubing Flush". The printer will automatically perform a tubing flush after shut down and after an idle period of 10 minutes

Be sure to read and understand the safety warnings before handling the printer.

The tubing flush menu includes following sequence:

- 1) Moves the head to the left maintenance station.
- 2) Starts pump sequence.
- 3) Pumps are stopping and the head re-caps.

The tubing flush can be started via the "Tubing Flush" menu.



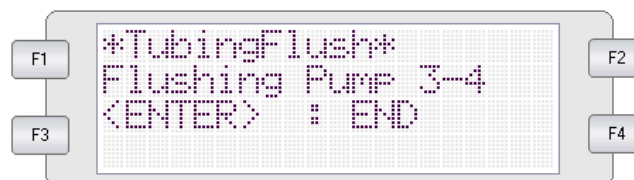
⚠ Notes ⚠

The numbers of the heads refer to the numbers above a nozzle check.

If you select Head 1-2, pump 1 of pump motor 1 and pump 1 of pump motor 2 starts pumping. The pump motors turn clockwise. (Cap 1,4,5 and 8 are pumping)

If you select Head 3-4, pump 2 of pump motor 1 and pump 2 of pump motor 2 starts pumping. The pumps turn counter clockwise. (Cap 2,3,6 and 7 are pumping)

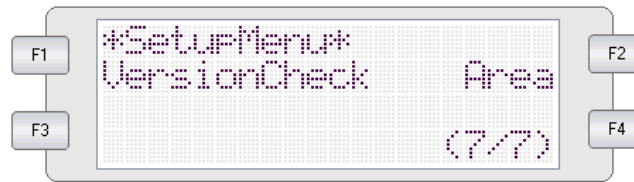
On the display the following text appears:



The pumps turn for a certain time. Press ENTER as they stop. To stop the pump motors earlier, press ENTER during the pump cycle.

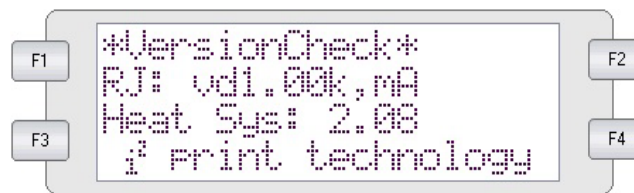
- To stop the tubing flush, press CANCEL. The head carriage moves back to the capping station.

5.4.7 Setup menu 7/7



5.4.7.1 Version Check menu

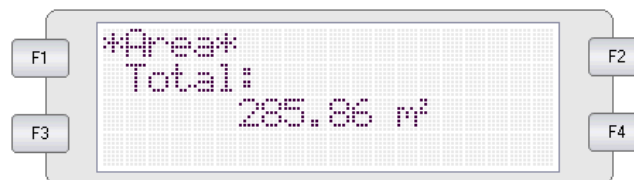
Check the installed firmware and heater system version.



Setup items	Parameters	Description
Version Check	-	• [CANCEL] key: shift to the previous hierarchy menu.

5.4.7.2 Area menu

Check the total amount of the printed area (x.xx m²) in the printer's life time.



Setup items	Parameters	Description
Area	-	[CANCEL] key: shift to the previous hierarchy menu.

6 PERIODICAL MAINTENANCE

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6.1 DONE BY END USER

This section describes the periodical services required for this machine. The periodical services ensure stable printout quality of the machine. In the periodical services, some service parts must be checked, cleaned, or replaced.

Perform periodical inspections according to the table below.

N°	Action	Frequency
1	Clean the wipers	Weekly
2	Clean the caps in the maintenance station	Weekly
3	Clean around the bottom of the heads	Weekly
4	Clean spitting box mesh	Weekly
5	Replace the wipers	Every 3 months
6	Change the upper sponge at the back of the capping station	Every 6 months
7	Change the filter of the fans	Every 6 months

⚠ Notes ⚠

All cleaning in "Ink areas" must be done with Mutoh Water based cleaning solution.

Above maintenance cycle is based on use:

8 hours / day, 5 days / week and 44 weeks / year.

If you use the machine more, maintenance periods will come earlier.

Available kits for the end user and their order numbers

1. Maintenance kit for 6 months

KY-80223

N°	Description	Quantity
1	Absorbent 2	1
2	Grease	1
3	Wiper	8
4	Water based textile cleaning	1
5	PE gloves	100
6	Pipet 10 ml	4
7	Swabs & applicator foam	1
8	Polyknit wiper	1
9	Filter fan diverter	2

6.1.1 Weekly maintenance

Before every print, perform a nozzle check. If some nozzles are missing or misfiring, perform cleaning cycles until all nozzles are in good shape.

We advise to run a normal or a powerful cleaning cycle to recover the nozzles.

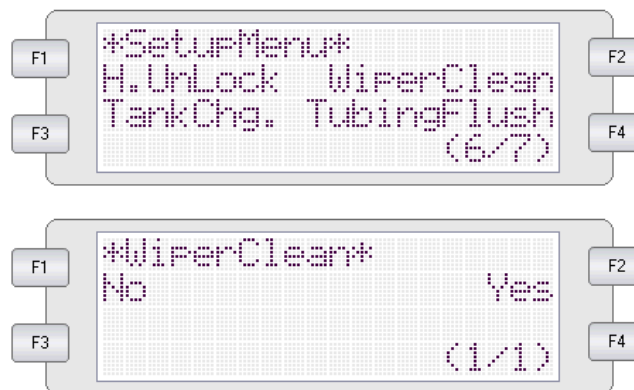
At the end of the week, when you will shut down the printer, the ink has to be removed from some parts, so it cannot harden. Otherwise, some parts will break down or result in bad print quality.

⚠ Notes ⚠

In the box you will find all supplies to perform the maintenance. Normally this is enough for 6 months. In case you're out of stock, order a new kit at Mutoh's Order Entry Department.

6.1.1.1 Clean the wipers

Step 1 : Power ON the printer and go to the "WiperClean"-menu.



Step 2 : Press the [F2]-key to accept the carriage to move to the left side of the machine.

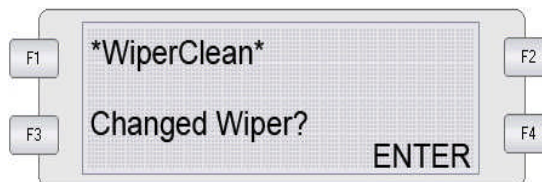
Step 3 : Clean the wipers with a polyknit wiper.

If necessary, use some Water based Cleaning Liquid to remove drops of ink.

Make sure to wear gloves.



Step 4 : Press the ENTER key when the cleaning is done.

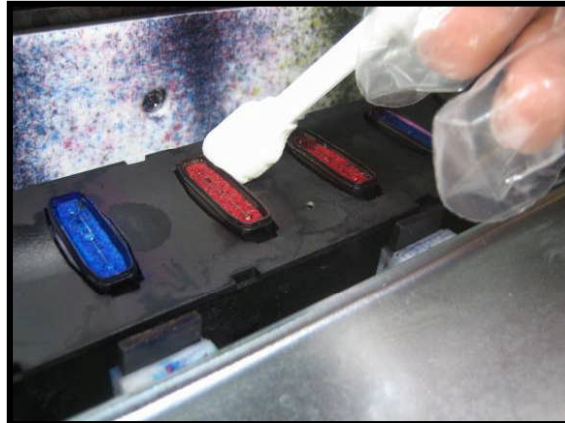


Step 5 : The carriage will go back to its home position.

6.1.1.2 Clean the caps in the maintenance station

- Step 1 :** Power ON the printer and go to the "WiperClean"-menu.
- Step 2 :** Press the [F2]-key to accept the carriage to move to the left side of the machine
- Step 3 :** Clean the area around the caps with a swab. If you see ink, dust or something else, clean it immediately to maintain your print quality.

Make sure to wear gloves.



- Step 4 :** Press the ENTER key when the cleaning is done.
- Step 5 :** The carriage will go back to its home position.

6.1.1.3 Clean around the bottom of the heads

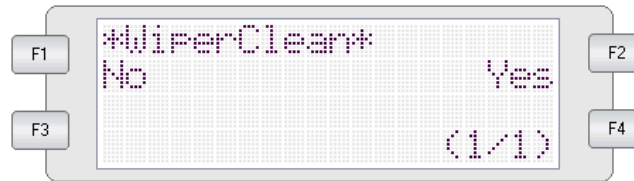
- Step 1 :** Power ON the printer and go to the "WiperClean"-menu.
- Step 2 :** Press the [F2]-key to accept the carriage to move to the left side of the machine.
- Step 3 :** Open the left maintenance covers.
- Step 4 :** Clean around the bottom of the heads. **Be sure NOT to touch the nozzle plate.**



6.1.1.4 Clean spitting box mesh

Step 1 : Power ON the printer and go to the "WiperClean"-menu.

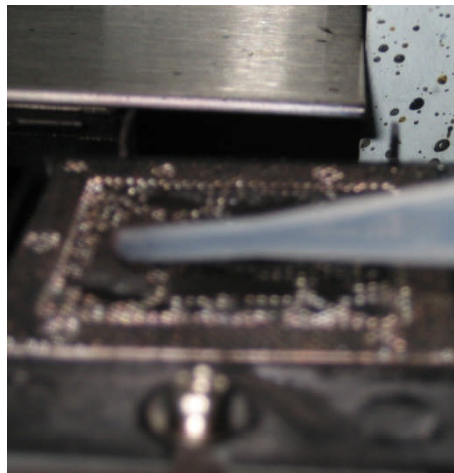
Step 2 : Press the [F2]-key to accept the carriage to move to the left side of the machine



The carriage will move to the left maintenance cover

Step 3 : Open the front cover.

Step 4 : Moisten the edges of the spitting box mesh.

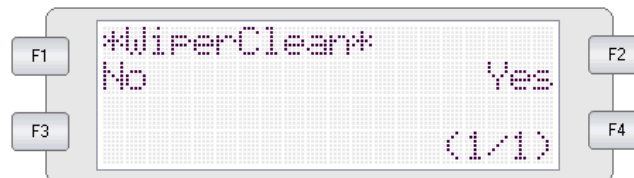


Step 5 : Press the ENTER key when done. The carriage will automatically go to its home position.

6.1.2 Three monthly maintenance

6.1.2.1 Replace the wipers

Step 1 : Power ON the printer and go to the "WiperClean-Menu".



Step 2 : Press the [F2]-key to accept the carriage to move to the left side of the machine

Step 3 : Remove the old wipers with a pair of tweezers

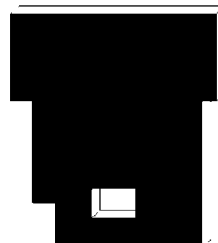
Step 4 : Before inserting a new wiper, moisten the wiper with Water based Cleaning Liquid.



Step 5 : Insert the moistened wiper with a pair of tweezers.

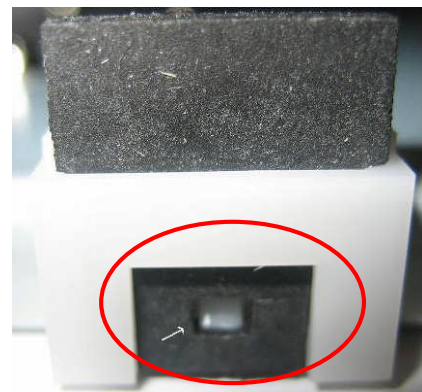


Be sure to insert the wiper correctly as shown below:



When standing in front of the machine.

Be sure that the wiper clicks in the wiper holder!



Step 6 : Close the front cover and press the [ENTER] key. The head will cap in.

⚠ Notes ⚠

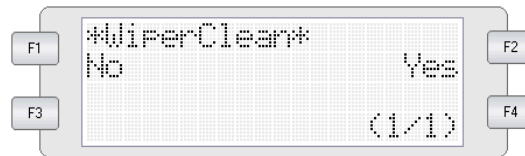
Be careful not to break the lips of the wiper arm while installing the wipers.

Do not touch the wipers with your bare hands to avoid fat or dirt get in contact with the wipers and automatically the nozzle plate. Use a pair of tweezers to avoid this. Clean wipers with appropriate cleaning liquid in case of dirt.

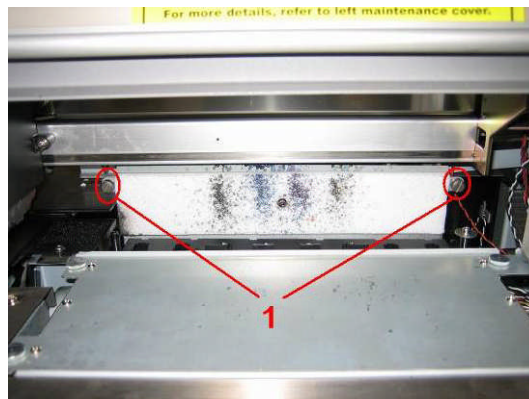
6.1.3 6 monthly maintenance

6.1.3.1 Change the upper sponge at the back of the capping station

Step 1 : Power ON the printer and go to the "WiperClean-Menu". This will cause the unlocking of the carriage.

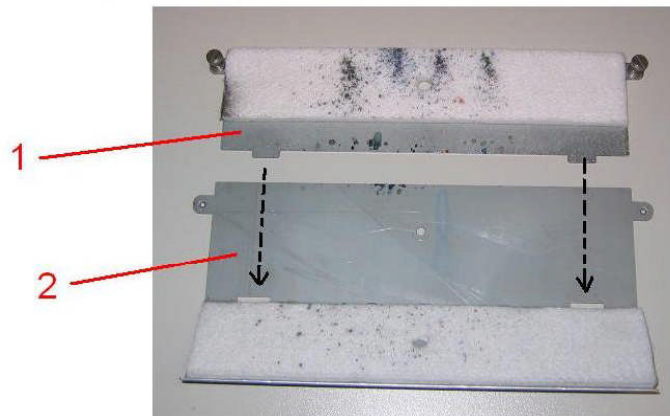


Step 2 : Remove the two screws fixing the sponge.



1 Screws to remove the capping sponge from the plate

Step 3 : Replace the sponge and tighten it again to the plate with the two screws.



1 Capping sponge
2 Plate

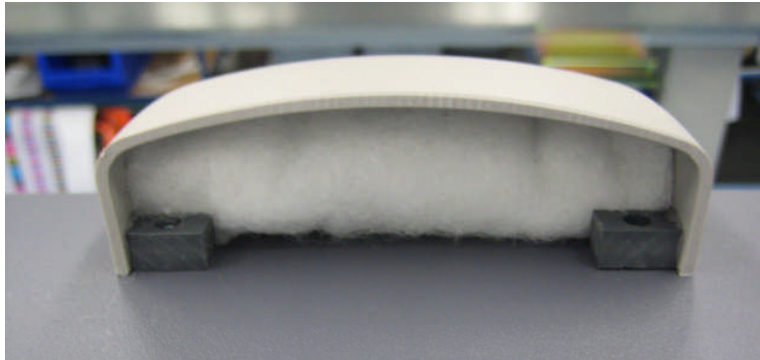
6.1.3.2 Changing the filter fan

⚠ Notes ⚠

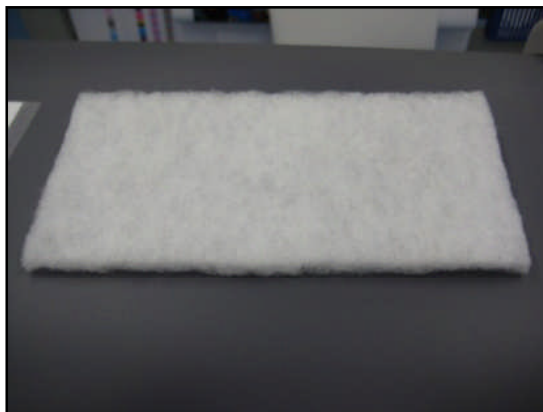
Make sure to read and understand all safety information.
Wear gloves when replacing the filter fan.

Step 1 : Make sure the printer is not operating.

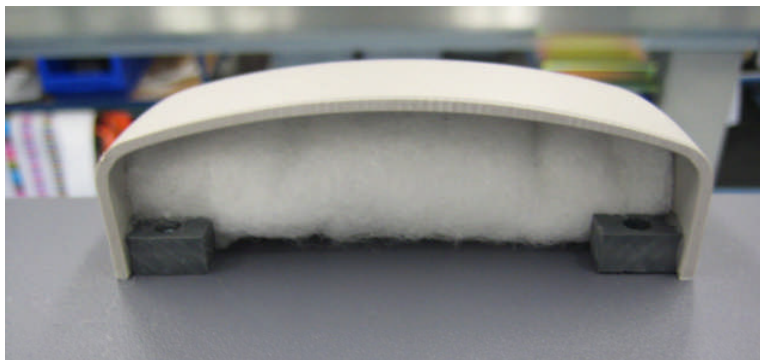
Step 2 : Take out the old filter fan.



Step 3 : Take the new filter and fold it two or 3 times until a thickness of 30 mm.



Step 4 : Insert the new filter fan into its place. Make sure to properly cover the hole.



6.1.4 Cleaning

You need to clean the printer periodically to keep it in best working condition.

Following are instructions for cleaning the printer.

6.1.4.1 Cleaning the outer case

(1) Cleaning frequency

Clean once a month.

(2) Cleaning procedure

Remove dust or smudges on the outer case with a soft cloth.

6.1.4.2 Cleaning the inside of the printer

(1) Cleaning frequency

Clean once a month.

(2) Cleaning procedure

The following are instructions for cleaning the inside of the printer.

Follow the steps below.

Step 1 : Open the front cover.

Step 2 : Use a soft brush to carefully clean away any dust or dirt on the pressure rollers.



Do not blow off media dust inside the printer using an air dusting machine. Doing so will cause noise to occur from inside the printer.

Step 3 : Use a cloth soaked in cleaning liquid and squeezes it well, wipe off media dust and ink from the platen.

6.1.4.3 Head cleaning

If printouts become faint or partially missed, perform head cleaning to clean the surface of the head and the nozzles.

Follow the steps below to perform head cleaning.

Step 1 : Make sure that the state of the product is normal.

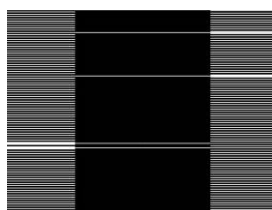
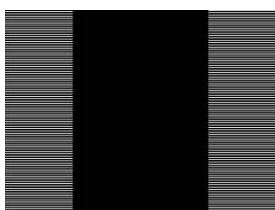


Caution

Be sure not to pinch your fingers while opening and closing the front cover.

Step 2 : Refer to "TestPrinting" to perform nozzle check printing.

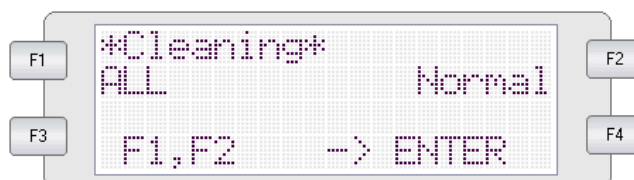
Step 3 : Check if the print head, referring to the diagram below.



Step 4 : Check if the printer is in the main screen.

Step 5 : Press the [F2] key.

I) The printer enters the cleaning menu.



Step 6 : Press the [F2] key to change the parameters.

Key	Parameter	Description
F2	little	Performs a little cleaning.
	Normal	Performs a Normal cleaning.
	powerful	Performs a powerful cleaning.

Step 7 : Press the [ENTER] key to start the head cleaning.



Notes

If the [Cancel] key has been pressed instead of the [ENTER] key after changing the parameters, the printer returns to the main screen without performing a head cleaning.

Step 8 : When the head cleaning has been completed, the printer returns to the main screen.

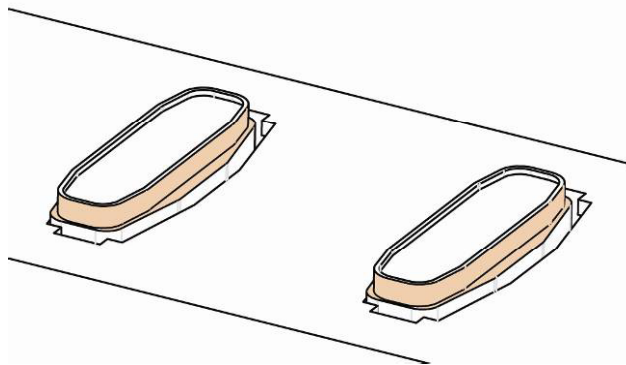
⚠ Notes ⚠

We advise to let the printer rest for 5-10 minutes after a head cleaning procedure. During that time, the ink comes to a fully stabilized condition, improving print quality considerably.

Step 9 : Perform a nozzle check again and check the print head.

⚠ Notes ⚠

When there are still some missing nozzles after some cleanings, it could be possible that the ink cycle is not completely airtight. To solve this moist the sides of the caps and perform a new cleaning.



Unlock the head with the Tubingflush menu to moisten the caps.

After moistening the caps perform another cleaning and NozzleCheck until no missing nozzles are established any more.

6.2 DONE BY AUTHORISED MUTOH TECHNICIAN

An Authorized Mutoh technician must check and replace some components of your printer on frequent base (every 6 and 12 months).

Be sure to remind your distributor when the replacements must be done.

It is very important not to skip a maintenance intervention in order to maintain constant print quality and to keep your warranty.

Please refer to the table below to know what the Authorized Mutoh technician must do.

N°	Action	Frequency
1	Change spitting box mesh	6 monthly
2	Apply grease on head up-down camm when needed	6 monthly
3	Apply grease on Y-motor belt when needed	6 monthly
4	Apply grease on roller path carriage when needed	6 monthly
5	Apply grease on capping station camm + gears when needed	6 monthly
6	Clean in maintenance area	6 monthly
7	Dust removal in fan area underneath print platform	6 monthly
8	Change dampers	yearly
9	Change pumps	yearly
10	Change wiper arm and wipers	yearly
11	Change spitting box assembly	yearly
12	Change capping station	yearly
13	Change the flat cable mousse	yearly

⚠ Notes ⚠

All cleaning in "Ink areas" must be done with Mutoh Water based cleaning.

Above maintenance cycle is based on use:

8 hours / day, 5 days / week and 44 weeks / year.

If you use the machine more, maintenance periods will come earlier.

Available kits for Authorized Mutoh Technicians only and their part numbers:

maintenance cycle Kit 12 months

KY-80224

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7 TROUBLESHOOTING

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7.1 INTRODUCTION

This chapter explains troubles that may occur when using the printer and how to solve them. If you encounter an error not described in this chapter, refer to "Error messages" and contact your local MUTOH dealer.

⚠ Notes ⚠

To receive our customer support service, please present your warranty. If you do not present it, you may be charged for the service even if it is within the term of warranty. If you have a maintenance service contract, please show the agreement or other documents.

7.2 FAILURES AND MALFUNCTIONS OF THE PRINTER

The printer does not work after the power has been switched ON.

N°	Possible cause	Solutions	Reference
1	You did not plug the power cable in.	Plug in the power cable.	Refer to 'Connecting the power cable'
2	The AC power does not match the specified voltage.	Use the printer at the specified voltage	Refer to 'Connecting the power cable'
3	The front cover is open.	Close the front cover.	Refer to 'Media handling'

The printer does not work after media has been loaded.

N°	Possible cause	Solutions	References
1	The front cover is open.	Close the front cover	Refer to 'Media handling'
2	The pressure rollers have been raised.	Lower the pressure rollers lever.	Refer to 'Media handling'
3	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Media handling'
4	One or more ink cassettes are not installed.	Install (an) ink cassette(s).	Refer to 'Installing ink cassettes'
5	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'

The printer does not work after data has been sent from a computer.

N°	Possible cause	Solutions	Reference
1	You did not connect the interface cable.	Connect the interface cables.	Refer to 'Connecting the Centronics interface' Refer to 'Connecting the network interface'
2	One or more ink cassettes have not been installed.	Install (an) ink cassette(s).	Refer to 'Installing ink cassettes'
3	Ink cassette is empty.	Replace the ink cassette.	Refer to 'Replacing ink cassettes'

Generating an error after data has been sent from a PC

N°	Possible cause	Solutions	References
1	The model setting of the computer is not correct.	Make sure that the model settings on computer and printer are the same.	Refer to 'Connecting the printer to your PC'
2	The interface setting or command mode on computer and printer do not match.		

Printouts are partially blurred or missing.

N°	Possible cause	Solutions	References
1	The media is damped.	Replace with new media.	Refer to 'Replacing media'
2	You used folded, creased or curled media.		
3	Check the media for curling or lift OFF.	When using media, set the following items in the media setting menu. Media Head Height : 1 position higher Vacuum : High Heaters : 50°C	Refer to 'Media type' Refer to 'Menu setup'

Printing position is not correct (some positions are not printed.)

N°	Possible cause	Solutions	References
1	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
2	You used the scale or mirror setting.	Switch OFF the scale or mirror setting, or make the setting again.	Refer to 'Menu setup'
3	You set the origin or starting position.	Switch OFF the origin or starting position setting, or make the setting again.	Refer to 'Menu setup'

Media jams occur frequently.

The Viper Extreme prints on transfer paper with water-based disperse dye inks. An annoying effect of transfer paper when coming into contact with ink is expansion of the media.

Therefore, the Viper Extreme has been specially developed to avoid the media cockling to occur and to minimize the print heads to touch the media when minimal media cockling occurs.

N°	Possible cause	Solutions	References
1	You used the printer in an environment other than the specified environment.	Use the printer in the specified environment.	Refer to 'Cautions on handling media'
2	You used old media.	Replace with new media.	Refer to 'Replacing media'
3	You used folded, creased, or curled media.		
4	Check the media for curling or lift-off.	When using media, set the following items in the media setting menu. Media Head Height : 1 position higher Vacuum : High Heaters : 50°C	Refer to 'Media type' Refer to 'Menu setup'

Roll media cannot be cut correctly

N°	Possible cause	Solutions	References
1	The edge of the cutting blade is not sharp.	Replace the cutting blade.	Refer to 'Replacing the cutting blade'
2	The roll media has static electricity.	Remove the static electricity on the roll media.	-
3	Media is too heavy to cut automatically.	Cut the media manually.	Refer to: "cutting media"

You cannot perform initial ink charging or wash

N°	Possible cause	Solutions	References
1	The front cover is open or the hold lever is up.	Close the front cover and lower the hold lever.	Refer to 'Media handling'
2	Some of the 8 ink cassettes are not loaded properly.	Load all of the 8 cassettes properly.	Refer to 'Installing ink cassettes'

Performing an initial ink charge while not using Ink

N°	Possible cause	Solutions	References
1	You switched OFF the printer during the initial ink charging.	Switch ON the printer to continue the initial ink charging.	Refer to 'Installing ink cassettes'
2	The printer rarely prints correctly only after initial ink charging.	Let the printer rest for at least 30 minutes. Perform cleaning a few times and check again.	Refer to 'Head cleaning'
3	The printer is sucking air	Perform a weekly maintenance and perform a tubingflush with Mutoh waterbased cleaning liquid.	

The media is damaged when loading it

N°	Possible cause	Solutions	References
1	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
2	Foreign material, such as a piece of media, are attached to the pressure rollers.	Clean the pressure rollers.	Refer to 'Cleaning the inside of the printer'
3	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'
4	You loaded sheet media into the printer.	Set the Cut Size setting to Length or Width.	Refer to 'Menu setup'
5	You used folded, creased, or curled media.	Replace with new media.	Refer to 'Cautions on handling media'
6	Check the media for curling or lift-off.	When using media, set the following items in the media setting menu. Media Head Height : 1 position higher Vacuum : High Heaters : 50°C	Refer to 'Media type' Refer to 'Menu setup'

Media is damaged during media Initial

⚠ Notes ⚠

Remove the jammed or damaged media.

N°	Possible cause	Solutions	References
1	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
2	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Loading media'
3	Foreign material, such as a piece of media, is attached to the pressure rollers.	Clean the pressure rollers.	Refer to 'Cleaning inside the printer'
4	You used the printer in a location with air conditioner or other location not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'
5	You loaded sheet media into the printer.	Set the Cut Size setting to Length or Width.	Refer to 'Menu setup'
6	You used media folded, creased, damaged, tore, curled.	Replace the media.	Refer to 'Loading media'
7	You did not use media retainers	Use media retainers	

Tracing media or other thin media cannot be detected

N°	Possible cause	Solutions	References
1	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'

Media size is wrong during media Initial

N°	Possible cause	Solutions	References
1	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Media handling'
2	The curled surface of media is up when loading.	Remove the curl in the media, or replace with new media.	Refer to 'Media handling'
3	You used the printer in a location with air conditioner or other location not appropriate for the specified environment	Use the printer in the specified environment.	Refer to 'Product Specifications'
4	You reused printed media.	Use new, not printed media.	Refer to 'Media type'

Media is crooked while printing

N°	Possible cause	Solutions	References
1	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'

Not connected via a Centronics interface to a computer

N°	Possible cause	Solutions	References
1	You did not connect the Centronics interface cable correctly.	Connect the Centronics interface cable correctly.	Refer to 'Connecting the Centronics interface'
2	When the computer transfers the printing data, the DATA lamp on the operation panel is not lit.	If the DATA lamp is not lit, contact the computer maker.	-
3	The Centronics setting on the printer does not match the setting on the computer.	Make the Centronics setting on the printer so that it matches the setting on the computer.	Refer to 'System requirements'
4	The type of command that is currently set, does not match the command of a computer or a driver.	Match the command setting of the printer to the environment of a computer or a driver.	Refer to 'Menu setup'

The printed lines are blurred

N°	Possible cause	Solutions	References
1	You used too thick or too thin media.	Set the correct media thickness.	Refer to 'Media type'
2	You used bond media.	-	Refer to 'Media type'
3	The printed surface is not the printable side.	Pay attention to the printable side to load media correctly.	Refer to 'Media handling'
4	Did you try head cleaning?	Perform head cleaning. Perform powerful cleaning. Clean the surface of the print head.	Refer to 'Head cleaning' Refer to 'Cleaning the cleaning wiper'

Lines are missing

N°	Possible cause	Solutions	References
1	The validity date of the ink cassette has been expired.	Use a new ink cassette.	Refer to 'Replacing ink cassettes'
3	Did you try minor adjustments for image quality?	Try minor adjustments for image quality.	Refer to 'Alignment'

Top Feed problem

N°	Possible cause	Solutions	References
1	Media jam occurred due to a need for Top feed.	Insert a minimum Top Feed	Refer to 'Top Feed menu'

Ink drops and white lines when using a bulk ink feeding system

N°	Possible cause	Solutions	References
1	Ink drops appear on media. → Ink level is higher than needle level	Print at a correct and stable ink level = needle level at all times or use Mutoh original ink cassettes.	-
2	Ink falls out resulting into white lines. → Ink level is lower than needle level	Print at a correct and stable ink level = needle level at all times or use Mutoh original ink cassettes.	-

7.3 ERROR MESSAGES

This chapter explains the messages displayed both when the printer works normally and when an error occurs, and possible solutions.

7.3.1 Status messages

The following are the status messages while the printer works normally.

Displays of the operational status

The first line of the operation panel displays following operational status.

N°	Display	Solutions	References
1	Ready to print	Waiting for the next operation. (Media has been loaded.)	-
2	Media End	The printer waits for the next operation. (No media has been loaded into the printer.)	Refer to 'Media handling'
3	Receiving	The printer receives data.	-
4	Converting	The printer is converting data.	-
5	Plotting	The printer prints.	-
6	Warning Waste Ink Tank	Empty the waste bottle	Refer to 'Empty the waste bottle'
7	Warning Ink Tube Life	Contact the dealer where you bought the printer or MUTOH's technical support centre.	-

Displays of the operational status

N°	Display	Solutions	References
1	Ink Refill **min	The printer performs ink charging. Wait for a while.	Refer to 'Installing ink cassettes'
2	During cleaning **min	The printer performs head cleaning. Wait for a while.	Refer to 'Head cleaning'
3	Media Initial *****	The printer performs initial setting of media. Wait for a while. Indicates the media type setting made.	Refer to 'Setting media type'
5	During washing Wait for a while	The printer performs a head cleaning. Wait for a while.	Refer to 'Changing Ink Types'

7.3.2 Message type error display and solutions

The following are the message type error display and solutions.

The following message type errors are displayed when an error occurs while operating the printer.

When one of the following message type error displays appears, the printer may stop operation.

If the printer stops operation, solve the problem to delete the error message and restart the printer.

Error messages regarding media feeding

The operation panel displays following error message on the first line of the operation panel.

N°	Display	Descriptions	Solutions	References
1	Undefined media	The printer failed to detect the media. (The printer stops.)	Reload the media.	Refer to 'Loading media'
2	Media Slant	The media was fed at an angle into the printer. (The printer stops.)	Reload the media.	Refer to 'Loading media'
3	End Of Roll	Roll media runs out. (The printer stops.)	Load new roll media.	Refer to 'Replacing media'
4	Cover Open	The front cover is open. (The printer stops.)	Close the front cover.	-
5	Please Set Media	The pressure roller has been raised. There is no media.	Set the media and lower the pressure roller.	-
6	Media JAM Error	The media jammed. (The printer stops.)	Remove the jammed media and reset a media.	Refer to 'When media jams occur'

Error messages regarding warnings of the remaining ink

The operation panel displays following error message on the forth line.

N°	Display	Descriptions	Solutions	References
1	Near End [*]	The ink is running short in the ink cassette. (The printer continues to perform.)	Prepare a new ink cassette.	Refer to 'Replacing ink cassettes'

⚠ Notes ⚠

The [*] shows the colour of the ink causing the error according to the following codes:

- 1-8 : ink cassette slot number (Refer to 'Installing ink cassettes')
- All : All ink cassettes

Other error messages



N°	Display	Descriptions	Solutions	References
1	Ink Status Cassette [*]	Ink cassette(s) is (are) empty. (The printer stops.)	Replace the ink cassette(s)	Refer to 'Replacing ink cassettes'
2	Ink Status No Filled [*]	Initial filling has not been performed.	Perform initial filling of the ink.	Refer to 'Installing ink cassettes'
3	No original ink	You did not load MUTOH's recommended ink cassette. (The printer stops.)	Load MUTOH's recommended ink cassette or set smart chips in manual mode.	Refer to 'Replacing ink cassettes' Refer to 'Manual smart chip menu'
4	4 Memory Status NoMemory DIMM 64 MB	Short of memory while converting or printing data.	Consider increasing the memory capacity.	-

⚠ Notes ⚠

The [*] shows the colour of the ink causing the error according to the following codes:

- 1-8 : ink cassette slot number
- All : All ink cassettes

7.3.3 Data error display and solutions

Following are data errors and possible solutions during printer operations.
Data errors are displayed when a communication error occurs between computer and printer.
If data error occurs, the following error messages are displayed and the printer stops.
Solve the problem to delete the error message and restart the printer.



N°	Message	Descriptions	Solution	Reference
1	Online status I** Error []	An error has occurred while receiving data.	Confirm the communication condition between computer and printer.	Refer to 'Menu setup'

⚠ Notes ⚠

*** In error messages are code numbers indicating what error occurred.

7.3.4 Command error display and solutions

Command errors are displayed when an error has occurred while converting the command data sent from computer to printer.

If a command error occurs, the following error messages are displayed and the printer stops.

Solve the problem to delete the error message and restart the printer.



N°	Message	Descriptions	Solution	Reference
1	command status MH** Error []	The computer sends Invalid command data	Make sure that the settings of the computer and the printer match.	Refer to 'Menu setup'

⚠ Notes ⚠

*** In error messages are code numbers indicating what error occurred.

[] indicates the command code of the error.

For the settings on a computer, refer to the computer's operation manual.

7.3.5 Error requiring a restart

Following are descriptions and solutions requiring a restart.

Errors requiring a restart are displayed when the following fatal error has occurred during printer operation.

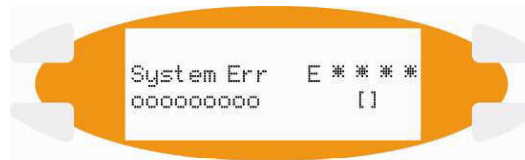
- Foreign material disturbing the printer operation is involved in the printer.
- An electrical circuit (such as board, motor, or sensor) failure has occurred.
- An error on the control program has occurred.

If error requiring a restart has occurred, the printer prints and then stops (see below).

- (1) Power relating to the driving system is shut OFF automatically.
 - (2) All indicator lights on the operation panel are switched ON and beeps sound continuously.
 - (3) The operation panel displays an error message.
- Press any key to stop the beep sounds.

If an error requiring a restart has occurred, solve the problems to restart the printer and delete the error.

If the same error message is displayed again, contact your local MUTOH dealer. Be sure to inquire the code numbers of the error messages.



N°	Message	Descriptions	Solutions	References
1	E System error*** 0000000000 []	An error which cannot be solved promptly has occurred.	<ol style="list-style-type: none"> 1. If foreign materials such as a piece of media or media dust are involved in the driving system, remove them. 2. Make sure that the replaced parts are correctly installed. 3. Power OFF the printer. After 10 seconds or more, power it back ON. 	Refer to 'When media jams occur ' Refer to 'Replacing consumables'

⚠ Notes ⚠

*** In error messages are code numbers indicating what error occurred.
[] indicates the command code of the error.
For the computer settings, refer to the computer's operation manual.

7.3.6 Heater element errors

⚠ Notes ⚠

In case of a heater error, please contact your local MUTOH dealer.

7.4 WHEN MEDIA JAMS OCCUR

Be sure to read and understand the safety warnings before handling the printer.

7.4.1 How to remove a piece of media (cut media)

Step 1 : Press [F4] to raise the pressure rollers.
The MEDIA SET lamp will switch ON (orange).
The operation panel displays the following message.



⚠ Notes ⚠

For raising or lowering the pressure rollers, use the foot switch instead of the operation panel.

Step 2 : If a piece of media or media dust is stocked in the printer, open the front cover and remove the piece of media or media dust.

Step 3 : If there is an error requiring a restart, power the printer OFF and ON again.

7.4.2 How to remove a piece of media (roll media)

To remove a piece of roll media, please refer to the User's Guide "Handling roll media".